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5 July 1984

USSR Report

TRANSPORTATION

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CONTENTS

MOTOR VEHICLES AND HIGHWAYS

GENERAL DIRECTOR ON MOSKVICH WORKS MODERNIZATION PLANS

Moscow IZVESTIYA in Russian 15 Mar 84 p 2

[Interview with Valentin Petrovich Kolomnikov, USSR deputy minister of the automotive industry and general director of the Moscow Automotive Plant imeni the Leninist Komsomol, by R. Lynev, IZVESTIYA special correspondent; date and place not specified]

[Text] V. P. Kolomnikov, USSR deputy minister of the automotive industry and general director of the Moscow Automotive Plant imeni the Leninist Komsomol, talks.

The thought: An improvement in economic indicators can be achieved for the time being basically through the reserves that are located, as they say, at hand -- the strengthening of order, organization and discipline; and that this will immediately provide a noticeable economic effect, is contained in K. U. Chernenko's pre-election speech. He pointed out: "It is necessary to go further -- on to deep qualitative changes in the national economy".

The collective of the Moskvich Production Association is now at the source of one of these changes. In preparing to produce a new generation automobile, the enterprise is updating itself also. In particular, it is arming itself with a flexible automated production system.

[Question] Valentin Petrovich, what is causing this innovation? What does it include and what is it providing?

[Answer] Life itself and the entire preceeding experience of the enterprise, in whose history there were both upward flights and slumps, led us to it. It is noteworthy that the upward flights usually followed after the introduction of a new successful automobile model. There was a period when up to 70 percent of the Moskvich cars were exported; half of them were sold in such countries as England, Sweden and Finland. However, new equipment, tooling and areas were required in order to develop this model. This required a great deal of expenditures.

The slumps basically began because we did not introduce into a model the changes that were dictated by the changing demand and by the requirements of scientific and technical progress. At one time, for example it was necessary to install in a vehicle a so-called energy absorbing steering wheel, which was capable of folding up at the time of an accident, instead of the usual one. This increased the safety of the driver. This structural change required a number of other ones-- in the production process. However, they could not make up their minds about them, considering them too expensive. Other improvements did not take place for this same reason. As a result, the model, which at first lagged behind in one indicator and then in many, was not able, of course, to count on success in the competition with products from foreign firms although it continued to come off the assembly line.

In continuing to occupy production capacities--so to speak -- beyond the period stipulated for it, this model, just as obsolete products in general, was transformed into a brake on the path of new technical solutions, advanced technology and the use of prospective materials.

In a word, life has ever more persisently demanded from us the introduction of that technology which could be rapidly improved when the design of an automobile is changed under the influence of demand -- that is, the installation of automated technological complexes, which can be adjusted to a different type of operation with the help of an electronic computer, instead of machine tools, which perform separate operations.

[Question] That is, the question of overcoming "rigidity" -- as one would like to call its inertness -- did not arise yesterday but was intensified continuously. In your opinion, why did its solution become imminent only yesterday?

[Answer] Yesterday, the level of equipment development prevented us from approaching it. The first generation computers were too bulky, there were few microprocessors, and they were not noted for reliability. This stage is now behind us. Computers are compact; microprocessors are reliable in operation; and those places on a car, which previously only a human hand could reach, are accesible to modern manipulators. These successes of electronic and microprocessor equipment opened up a path for it into the shops -- for its broad participation in the full-scale mechanization of production and for shifting it to flexible systems. Today's requirement to sharply increase production efficiency lies in this. As far as I know, the leading firms of the United States, Japan, the FRG, and France are actively working in this direction. This trend is clearly seen in the automotive and other types of machine building and in electrical engineering. A typical item is that not a single one of the foreign machine tool firms, which I recently had occasion to visit, is today receiving orders for traditional -- "rigid" -- equipment.

[Question] It happens, Valentin Petrovich, that not only its traditional enemies, whom it has become accepted to think of as conservatives, but also -- unintentionally, of course -- some of its ardent supporters, who are ready to undertake the task without the necessary scientific and technical preparatory work, damage the new item. How do matters stand with respect to them

in your enterprise? You see, it is faced with becoming the base one for the introduction of flexible technologies not only in the automotive but also in other branches.

[Answer] Of course, it is not easy to be the first. We, however, are not beginning from zero. Robots are today performing a number of labor-intensive operations for us in the welding of bodies and painting. A robot processes a body of one size according to the program that has been placed in the computer; another program is plugged in according to a signal, and it adjusts itself in accordance with it. I will point out that a robot applies paint more evenly than a man. It can work under any conditions. Four robots, which were recently installed, replaced 16 welders for us. Previously, we would have required years of intense searching in order to free this number of people engaged in difficult manual labor. The use of robots provides a rapid and qualitative improvement. Thanks to it, for example, a considerable part of the defects in the construction of an automobile can be detected not during road tests, which are rather difficult but -- nevertheless -- not free of mistakes, but during bench tests directly in the plant. As they say, it is possible to continue the examples.

Nevertheless, the use of robots is only the initial stage of this radical updating about which we are talking -- the amalgamation of robots in flexible automatic systems. These systems are needed not only in production but also in its preparation, servicing, designing, and -- this is very important -- controlling. There have been cases when the automation of only some production processes -- without the necessary monitoring of quality -- led to the output of complete waste.

Thus, our designers already have considerable work experience along each of these avenues, and this has permitted us to undertake the solution of a more difficult task. We are not solving it in isolation but in close cooperation with leading foreign firms and with the help of the scientific institutions of not only our branch but also those of the electrical engineering, electronic, machine tool, and instrument manufacturing branches. Essentially, an interbranch complex program is being carried out. Other collectives will be able to rely on the experience that we are acquiring during its fulfillment. With respect to our partners, they are already accustoming themselves to it now. How? I said above that obsolete items seemingly restrain technical progress. A new item, on the other hand, stimulates, imposes increased demands upon executors, and exerts a revolutionizing influence on both production and its participants.

[Question] It seems that it is worthwhile to talk about the participants in particular. For example, will there really be flexible systems "without humans", as they now say?

[Answer] The more technology is improved, the fewer people in a shop -- this is clear.

Most of all, manual labor is today found in operations that are the simplest and physically difficult-- on the assembly line. This work now attracts few. From this comes the shortage of workers primarily with low skills. Consequently, the use of robots is required here first of all. Next -- the machine operators and not only those with the lowest category but also those with an extremely high qualification which comes to an individual usually after 10-15 years of work and consists of experience and skills to the greatest degree. The shortage of workers with such a qualification is also extremely appreciable today.

It is interesting how these trends distinctively have something in common with the interest and wants of youth. What attracts them? The competitions in our plant's vocational technical school show this. Not many people today want to receive the specialty of a lathe operator or milling-machine operator. On the other hand, as soon as the recruitment is announced for the specialties of, for example, setter-up of machine tools with a numerical programmed control or transfer line, there is no getting rid of those wanting them. In contrast to machine tool operators, the workers in these modern specialties -- all people with a secondary education -- achieve perfection in their work -- and this means, recognition -- not after 10-15 years but after one or two years. This is very important for self-approval and the acquiring of social definition.

Something else is no less important. Whereas in such cities as Moscow it is possible to find machine-tool operators with difficulty and in our plant there exist, for example, worker dynasties of lathe operators and milling-machine operators, the assimilation of new production capacities in young cities is at times stretched out for many years because of the shortage of machine-tool operators with experience and skills. I think that this is just a variant where it is necessary to create at the same time both production and production workers of a new type.

[Question] We imagine, Valentin Petrovich, that the plant's reconstruction is completed and that the flexible technology is operating and participating in the output of the new automobile model. And here the need arises to modernize it and to shift to a new modification. How can it be?

[Answer] Today, we already forsee 11 modifications for the vehicle -- considering the different demands and purposes. There is the standard automobile, the sports model and a station-wagon taxi. There is a microbus and a small truck which is very much needed by commercial organizations and public catering enterprises who long ago requested that we create specialized transportation for them. A rural version with two drive axles is possible. And all of this using one chassis, an engine with the same horsepower, and the same production areas -- without additional expenditures. The initial output of an automobile using flexible technology is planned for the first quarter of 1986.

[Question] In what condition is the matter now?

[Answer] The collective has put its soul into the large task, which has been assigned to it, and has become captivated by it. The collectives of scientists, who are working together with us, and the Moscow builders are also demonstrating the same correct understanding of the task.

However, the Ministry of Machine tool and Tool Building Industry and the Ministry of Electrical Equipment Industry, unfortunately, are still not hurrying to give instructions to their special design bureaus and enterprises: the Baranovichi Transfer Line Plant, Kharkov Transfer Machine Plant, Zhitomir Automatic Machine Tool Plant, the Leningrad Elektrik Plant, and others. for them to take part more rapidly in the large task that is common to us.

8802
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MOTOR VEHICLES AND HIGHWAYS

PLANS FOR THIRD MOSCOW RING ROAD

Moscow PRAVDA in Russian 16 Mar 84 p 6

[Article by N. Korshunova: "The Third Ring Road"]

> [Text] Where does a ring begin? The question, which at first glance seems strange--a ring is a ring, without a beginning and an end--did not disconcert my interlocutor, Svetlana Fedorovna Pankina, chief engineer of Workshop No 7 of the Moscow Institute for Planning of Engineering Structures. The conversation with her touched on the new 35-km transportation ring road of the capital. The third in number.

The city, whose streets, thoroughfares and highways have been developed according to a specific radial-circular layout, formed for centuries according to its own laws. The simplest and most efficient layout, as the representatives of a new science--bionics--now assert. Indeed, if you look at a map of Moscow, it is possible to see that its layout reminds one by its pattern of a cobweb, which has been spun with amazing efficiency.

"However," Pankina notes, "for all its efficiency the layout of the transportation arteries of the capital for the present is far from perfection and lags behind the requirements of today. The traffic density is increasing relentlessly, and one after the other the highways are beginning to exhaust their traffic capacity."

Of course, the transportation layout is undergoing transformation, being adapted to the needs of the city. In recent years work on its updating has been performed on an extensive scale. The renovation of such important highways as the Yaroslavl, Dmitrov, Warsaw, Kashira and Shchelkovo has been carried out, new overpasses, bridges, traffic interchanges and tunnels have been built.

But, perhaps, the third intracity transportation ring road is the largest construction project. Its building in rayons of established dense housing development, over land which is saturated with service lines is a matter of extreme complexity, but of prime necessity. Located in the zone between the Sadovaya Ring Road and the Moscow Ring Road, the closed route of the new highway of nonstop traffic will be of enormous importance in the life of the city. It will take upon itself significant traffic flows.

The third ring road, which is designed for eight-lane freight transportation traffic, will make it possible to carry up to 8,000 vehicles at rush hour. A portion of the ring road--its northern section--is already in operation. Having provided ourselves with a map, Svetlana Fedorovna and I "set off" on a trip over the highway.

"Here, at Begovaya Ulitsa," she explains, "the ring road originates and intersects Leningradskiy Prospekt, plunging under it into a tunnel."

Further the route through Nizhnyaya Maslovka heads toward the three-deck transportation overpass at Savelovskiy Station. Through one of its "stories" the ring road comes out directly onto Sushchevskiy Val and then swoops down to the square of the Riga Station, through the Riga Overpass to Sokolniki Park.

With the placement of this northern section into operation, as specialists attest, on the basis of real calculations, the traffic density on the square of the Belorussian Station and on the parallel sections of the Sadovaya Ring Road has already been reduced. The flow of vehicles, which are proceeding through Lermontov Square in the direction of Komsomol Square, has been reduced.

True, on the operating route of the ring road there is a weak spot, which is creating traffic jams. At the intersection with Prospekt Mira the vehicles, which are proceeding along the ring road, come under the "crossfire" of traffic lights and lose considerable time.

"In the future here, near the square of the Riga Station," Svetlana Fedorovna reports, "it is planned to build a motor traffic tunnel. The architectural layout assignment for its designing and construction has been approved."

Having flown along the Riga Overpass, above the serpentine railroad tracks, we and P. Platov, chief engineer of Bridge Detachment No 4 of the All-Union Trust for the Construction of Large and Supersize Bridges of the USSR Ministry of Construction, go to where the basic front of operations has been launched. A wide roadway runs freely directly on the path of the vehicle from Sokolniki Val. Ahead the 40-m wide tunnel underpass, which was built at the intersection with the Mitkovskaya Railroad Spur, glimmers with lights. We drive into it, while above, over our heads, a freight train moves slowly, rumbling.

Now, when the first start-up complex from Sokolniki Val to Rusakovskaya Ulitsa has been put into operation, it is difficult to imagine how hard this leg of the ring road was for the construction workers. It passed through densely built-up blocks, numerous railway lines with a dense network of underground service lines were interwoven on its path.

In Moscow more than 10 motor traffic tunnels of this type have been built, and still the specialists of the Main Administration of Construction of Engineering Installations of the Moscow City Soviet Executive Committee had to rack their brains over the Mitkovskiy Underpass--a structure which is very complicated and interesting in its own way. For the first time in domestic practice it was built by the "wall in the ground" method.

From the tunnel the route of the ring road, bisecting the park, practically flies up onto the curved Rusakovskiy Overpass. This year its construction will be completed, and Baumanskiy and Sokolnicheskiy Rayons will be united by the shortest route. But for the present the traffic over the arch of the overpass stops in the middle. The second half, which is under construction, is still hidden by a fence. Here, closer to Bakuninskaya Ulitsa, the workers of the subdivisions of the Main Administration of Construction of Engineering Installations of the Moscow City Soviet Executive Committee are carrying out the laying of underground service lines. This year the construction of the tunnel under Bakuninskaya Ulitsa, which the route of the beltway in the direction of the Yauza River will intersect, also has to be started. The Gospitalnyy Bridge over the river will undergo renovation. It will be widened to 45 m and lengthened, while preserving in so doing the unique architectural appearance.

Having crossed the Yauza, the route over the overpass, which will run above Prolomnaya Ulitsa, will head across Shosse Entuziastov, will intersect Nizhegorodskaya Ulitsa, the tracks of the Kursk-Gorkiy Line of the Moscow Railroad and Volgogradskiy Prospekt and will head toward Proletarskiy Prospekt. The highway will pass along Avtozavodskaya Ulitsa and Avtozavodskiy Bridge and along the Malaya Railroad Ring will head toward Gagarin Square. Having spanned the Moscow River, the route of the ring road will point toward the region of Luzhniki, from there will again cross to the other bank of the river, will stretch along the intracity railroad, will intersect Kutuzovskiy Prospekt, as well as the Moscow River once again and will head toward its origin--Begovaya Ulitsa.

7807
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NATURAL GAS-POWERED TRUCK EXPERIMENTATION

Moscow IZVESTIYA in Russian 18 Mar 84 p 1

[Article by A. Blokhnin: "The Motor Vehicle Fills Up at the Gas Pipeline"]

> [Text] On the light gray sides of the ZIL there is a bright inscription: "Liquid methane." This is the first truck in our country, which runs on liquified natural gas.

To the left of the cab, where the gas tank or a cylinder with a liquified propane-butane mixture is usually located, there is a large silver "thermos" with liquid methane. Its boiling temperature is -160°. In order to protect the fuel from vaporizing, a cryogenic tank was required on board the truck. It holds 160 liters of liquified natural gas. This provides the motor vehicle with a run of 300 km. The first thing, to which you direct attention, is the unusual ease with which the engine starts. This is especially noticeable, the testers said, at very low temperatures: gasoline at low temperatures vaporizes poorly, while gas mixes easily with air, forming an ideal "food" for the motor. Incidentally, the octane number of methane is higher than that of Extra gasoline. Gaseous fuel will increase the motor life by approximately a third.

"The main goal of the conversion of truck transport to natural gas," N. Zakharov, chief of a laboratory of the Scientific Research Institute of Motor Vehicles and Motor Vehicle Engines, relates, "is the saving of gasoline. For precisely trucks are its main users. At present in Moscow about 15,000 ZIL's are operating on liquified petroleum propane-butane gas. However, its amount is directly proportionate to the amount of petroleum being produced, but in recent times with the introduction of the so-called gas-lift method has even been decreasing: the casing-head gas is being reinjected into the beds."

Natural gas has significantly better prospects. According to the estimates of Soviet and foreign specialists, there is 10- to 12-fold more of it (in comparable amounts) on our planet than petroleum. Gas is being pumped through pipelines over large distances. This process of its liquefaction is also not complicated. It is possible to do this, for example, by the sharp decrease of the pressure of the gas, which comes from the main pipeline, in so-called turbine expansion engines. Undesirable impurities, particularly hydrogen sulfide, are easily removed in the process of liquefaction. The fuel turns out to be clean. The engine exhaust is accordingly clean.

While familiarizing myself with the unusual ZIL, I was pleasantly surprised: the exhaust did not have the unpleasant pungent smell which is specific to a gasoline-powered motor vehicle.

In practice it has no smell at all!

"This circumstance is especially important," N. Zakharov continued, "for large cities and resort cities. Natural gas-powered motor vehicles according to ecological indicators are five- to sixfold cleaner than gasoline- or diesel-powered motor vehicles. And their introduction is planned first of all precisely in such centers. Here natural gas, obviously, will also become the main fuel for buses. In principle it is possible to convert to it fixed-route taxis (at present the UAZ is being equipped with such a system at the Scientific Research Institute of Motor Vehicles and Motor Vehicle Engines) and passenger taxis."

The technical problems, which are connected with the equipment of the vehicles, have practically been solved. This year the Moscow Motor Vehicle Plant imeni I. A. Likhachev and the Gorkiy Motor Vehicle Plant will produce the first test batches of trucks with cryogenic systems, which make it possible to use liquified natural gas as a fuel. A special column of such vehicles will be set up in the Main Administration of Motor Transport of the Moscow City Soviet Executive Committee.

The question of the development of a network of gas filling stations, equipment for them and coaxial filling hoses, through which not only should the liquid gas be pumped, but its vapors should be removed from the tank, for the present remains unresolved. The State Committee for the Supply of Petroleum Products--the main distributor of fuel in the country--is pretending that the problem of using liquid natural gas in motor transport is just as far from it as conquering outer space. Of course, buckets and watering cans are simpler in design than a coaxial hose. But it is necessary to solve the problem--for the sake of common profit.

For the sake of the clean air of our cities.

7807
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GRAIN HAULING OPERATIONS IN KUYBYSHEV OBLAST

Moscow SEL'SKAYA ZHIZN' in Russian 7 Mar 84 p 2

[Article by O. Konovalenko, first deputy chairman of the oblispolkom, and S. Pisarev, chief of the territorial motor vehicle transport association, Kuybyshev Oblast: "From an Experiment to a System"]

[Text] As is known, motor vehicle transport occupies a leading place in the shipment of agricultural cargoes. Quite a bit of experience in operating motor vehicles according to progressive methods has been accumulated in variour regions of the country. In particular, the so-called Saratov system for hauling grain, which permits not only transportation assets but also harvesting equipment to be used effectively, has received widespread recognition.

The authors of the article which is being offered discuss how one can shift to this advanced system everywhere by relying on the experience that has been accumulated.

Last year, Kuybyshev Oblast's rural workers filled the motherland's granaries with 1,800,000 cons of grain. This was 400,000 tons more than the plan. More than 19,000 motor vehicles worked at gathering in the harvest. More than 12 million tons of agricultural freight was transported with their help. The surrendering of grain to the state reached 50,000 tons on individual days.

The system of centralized control over grain shipments during the harvest, which has already been used in our oblast for several years, contributed a great deal to the success. As it was being improved, not a single consideration, which was at first glance practical, was rejected in practice. However, the fundamentally important ones nevertheless prevailed. First, it is work not according to monthly or weekly schedules but according to hourly schedules that have been compiled for each day. Second, it is the use of electronic computer equipment during the compilation of the schedules for each motor vehicle.

Now when there is still a great deal of time until the gathering of the harvest, it is time -- in our opinion -- to be concerned about the preparation

of personnel, equipment and organizational developments for the widespread use of a method that has justified itself. We will talk about it in more detail.

Even before the beginning of the hard work during harvest-time, it was established based on forecasts that there was a shortage of rolling stock in the oblast, even considering the vehicles that would be enlisted from outside--especially the one-man, medium-load capacity GAZ and ZIL type.

In order to compensate for this shortage, it was necessary to get the greatest output from each motor vehicle. The use of modern methods and systems for centrally controlling shipments and the introduction of daily schedules, which were calculated by computers, permitted the smooth operation of the entire harvesting conveyer line to be increased and coordinated working conditions for each currentand each grain receiving and other procurement enterprise to be established. All of the participants in the harvesting work regarded the daily schedules with interest.

The corn growers and transportation workers of Kinelskiy Rayon were among the first in the oblast to begin mastering the new method for shipping grain crops on the "threshing floor" arm. People were trained and equipment and receiving points were prepared for the harvest.

The very first results confirmed the economic benefit of the progressive system and the prospects for its further development based on a creative alliance of programers, grain procurement officials, machine operators, and motor vehile operators under the direction of the centers for controlling shipments. Accurate information on the volume of grain crops in the currents and on the capabilities of the elevators to receive the grain, the hourly schedules and a strict accounting of time made the delivery of grain a controlled process. In Kinelskiy Rayon, the experiment provided an opportunity to free more than 30 percent of the motor vehicle trains, which were participating in the harvest, and send them to perform other work. In addition, an opportunity presented itself to raise the productivity of each motor vehicle train 1.5 -fold. Whereas the delivery of 1,000 tons of grain a day to an elevator was previously considered a record, 2,000 tons now became the norm.

The progressive shipment system was partially used also in Bolsheglushitskiy and Pestravskiy Rayons.

Nevertheless, the discussion today is not about individual achievements in this matter but about the problem in general. It is sufficient to say that even in those three rayons, which were the pioneers in incorporating the centralized system for shipping harvests, so many difficulties, unresolved questions and discepancies were detected that it was beyond the capabilities of the motor vehicle operators to overcome them.

Thus, it turned out that the information from the currents on the presence of grain was not always objective during the harvest. Loading assets were also undermined. The grain cleaning and drying units have already become obsolete long ago and were not suitable for working with the new road trains.

The hoists in the elevators were not always in working order. Finally, the roads were unreliable. For example, it is 15 kilometers all told from the Sovkhoz imeni Antonov -- the largest grain farm -- to the elevator, but they are such that not a single motor vehicle could pass over them. Therefore, the grain had to be transported over a detour of 110 kilometers.

They were not able in Kinelskiy Rayon to work out the necessary coordination of the harvest participants on the "field-threshing floor" arm. As a result, the grain was delivered from the combines in the old way.

On the other hand, not far away in Bolsheglushitskiy Rayon, where the managers treated the proposals of the transport workers in a business-like manner, this problem was solved much better. That is why transportation functioned accurately there on the whole. Effective operational communications permitted vehicles to be transferred to where they were more needed.

In the recommendations for the organization and centralized control of agricultural product shipments, which were approved on the eve of the harvest by an order of the oblispolkom, it was pointed out that every automobile, working in the harvest, should transport each day no less than 20 tons of agricultural products and that it should deliver an average of 600 tons during the entire period of the hard work during harvest time. The distribution of the road trains by regions occurred upon the recommendation of the oblast agricultural administration -- unfortunately without considering their average load-carrying capacity and the plan for each rayon's surrendering of grain. As a result, the design load for one road train during the harvest was only 430 tons on the average for the oblast. In some rayons, this indicator was even lower; but in others it was, on the contrary, higher. This unequal distribution of vehicles led to a shortage of trains in the northern rayons and to their surplus in the southern ones. This could not fail to lead to the disruption of the schedules and to the demurrage of the rolling stock, and this means that it also affected its output.

From this comes the skepticism of individual drivers about the capability to accurately organize the work of transportation according to schedules. Incidentally, this skepticism was also caused by a number of other reasons. For example, not all of the workers in the rayon centers for controlling shipments were sufficiently prepared to make effective decisions on their own. This led to errors in planning work and in directing transportation.

Here is another negative factor. In trying to find extra vehicles for a reserve at any price, the directors of many kolkhozes and sovkhozes consciously overstated the data on the amount of grain they had for the threshing floor. Because of this, the transportation, which was sent according to the schedule, often returned empty.

Other causes also had an effect. As is known, it is easier to insure the smooth operation of motor vehicle transport if it is assembled in a single detachment. Indeed, road trains were often allotted to individual kolkhozes or sovkhozes because of a practice, which had taken shape, and the assertive-

ness of the managers. This deprived the rayon control center of the opportunity to efficiently move the rolling stock to where it was needed more. The dislocation of the road trains not in the motor vehicle parks but on the kolkhozes or sovkhozes led to some drivers being compelled to travel about the rayon in search of grain. But again, this led to disruptions in the transportation schedules.

The oblispolkom's recommendations especially pointed out the importance of insuring the accurately organized receiving and mechanized loading and unloading of agricultural products. This primarily concerned the rural machine operators and grain procurement officials. However, they let down the motor vehicle operators, not having prepared this work sector as it should have been.

Because of the low productivity of the loading systems on the farm threshing floor, KamAZ-type vehicles spent more than an hour being loaded in Krasnoyarskiy Rayon, more than four--in Koshkinskiy Rayon, and almost one and half hours in Bolsheglushitskiy Rayon; the norm is 15-18 minutes.

All of the questions, which have been raised here and which touch upon the productive use of rolling stock in transporting grain, are acquiring special significance in connection with their recent review during the session of the CPSU Central Committee Poliburo.

Would that the directors of the kolkhozes and sovkhozes desire to free themselves more rapidly from sluggishness in thinking when the matter concerns the use of cargo vehicles. There should be a state approach to this important matter. In our opinion, the economic lever--the financial responsibility of managers for enlisting "extra" vehicles in the work and a strict claim against them for transportation expenditures -- would be able to play no small role in it. The other partners in the agro-industrial complex, for example, the workers in the State Committee for Supply of Production Equipment for Agriculture, grain receiving enterprises, and other branches of the national economy, should occupy a more active position in the realization of innovations.

8902
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VAZ ENGINE CAMSHAFT RELIABILITY, AVAILABILITY PROBLEMS

Moscow SOVETSKIY PATRIOT in Russian 18 Mar 84 p 4

[Article by S. Pedenko: "A Line Without End"]

> [Text] "Dear editorial office! In the article '8,000,000 Zhigulis,' which was published on 14 December 1983, it is stated: 'The VAZ engine is also very reliable. Its service life is equal to the run of a motor vehicle of 200,000-300,000 km.' How is it so? Whereas for the first Zhigulis the camshaft 'ran' 40,000 km, now already after 14,000-20,000 km it fails. The line for the replacement of camshafts at the Sverdlovsk AvtoVAZtekhobsluzhivaniye is 10 years long."
>
> G. Pogrebnyak
>
> S. Pedenko, the author of the article, replies to the reader.

Since 1982 the nitriding of the cams has been used instead of induction hardening with high frequency currents, the grade of steel of the valve rocker has been changed. While since last year the process of the production of camshafts with the hardening of the cams by chilling on special equipment has been introduced in production. As a result the life of camshafts and valve rockers has been increase to a run of 125,000 km.

For the improvement of the supply of consumers the volume of deliveries for spare parts of camshafts and valve rockers has presently been increased to 300,000 sets a year. Moreover, the stage-by-stage placement into operation of capacities for the repair of parts of up to 240,000 sets annually is being carried out.

Of course, time will be required for the final stabilization of the situation with spare parts. Therefore a regular succession for the replacement of camshafts has been introduced at maintenance enterprises.

7807
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MORE EQUIPMENT FOR HANDLING FROZEN CAR LOADS NEEDED

Moscow EKONOMICHESKAYA GAZETA in Russian No 8, Feb 84 p 16

[Article by S. Drugal', doctor of technical sciences, laboratory chief, Urals Branch, All-Union Scientific Research Institute of Railroad Transports, Sverdlovsk: "A Tough Nut To Crack"]

[Text] First, a few figures. Our country's railroads annually haul 1.5 billion tons of bulk freight. Of this amount, over 250 million tons freeze during the wintertime. It takes 3 man-hours to remove an unfrozen load from an open rail car, while a frozen load requires 100-150 man-hours or more of manual labor.

Large enterprises that unload over a million tons of freight per year can avoid this problem by using a car-dumping complex in a heated enclosure. Average-size and small enterprises, which unload more than half of the frozen bulk materials, experience big problems during the winter, as was reported in EKONOMICHESKAYA GAZETA.

In some cases, rail cars are put into heated buildings, where they are allowed to thaw for several days. In other places, the load is scraped out little by little with clamshell buckets, damaging the upper framework and sides of the open rail car. Year after year there are attempts, always without much success, to use pick hammers.

It's like mining the raw materials a second time. The difference is that in a mine they use a mining machine, while in rail cars they use crowbars, picks and shovels. It's probably not possible to exactly calculate the losses suffered by the economy due to the diversion of labor, the damage to rolling stock and the extended demurrage of rail cars.

It is assumed that taking preventative measures against freezing, while introducing traditional means of mechanization on a large scale, will be sufficient to ensure the unloading of frozen cargo. This can be done by either using freeze-prevention additives or by reducing the moisture content of the material.

Unfortunately, the freeze-prevention additives which are available are not very effective. Applying a special compound to the rail car walls will

prevent materials from freezing to the walls, but no more than that. The load still become a monolith. The problem of restoring bulk material friability has not been solved.

A radical method of preventing freezing is to lower the moisture content of the material to a level at which it will not freeze. However, two important circumstances must be considered. First of all, removing the moisture from a huge amount of bulk material involves large capital investments in drying systems and will unavoidably make the raw materials more expensive. Secondly, the shifting of the country's raw materials base to eastern regions has significantly increased hauling distances. This increases the probability that the demoisturized freight will freeze due to changes in weather conditions over the hauling distance. The results is that bulk material drying as a method of preventing freezing will not be widely used.

What to do? Materials must be unloaded in the winter as well as in the summer. This question was raised with particular urgency in the early 1960's. Over 40 scientific-technical institutes were brought in by the State Committee for Science and Technology to solve the problem.

The nut turned out to be a tough one to crack, and no solution to the problem was found. But some things were done as a result of the joint effort. An infrared device was developed to heat the material in the rail car. A drilling-and-breaking machine was designed. The DP-6S vibrating was also developed.

It is well known that nothing gives as full an evaluation of mechanical and technological inventions as do actual production conditions. And loosener production experience rejected infrared heaters: they were expensive, complicated, unreliable and no better than standard convection heaters. It is evident that very few infrared heaters will be used.

Some enterprises are still using drilling-and-breaking machines, which are profitable when volume is small and where it is technologically desirable that the raw material be further reduced in size. Without getting into the technical aspects of the problem, I will note that the main shortcoming of drilling-and-breaking machines is the pinpoint unloading into the receiving hopper, which causes high construction costs and low productivity. This is one of the reasons that the Volga Production Test-Machinery Association of the USSR Ministry of Power and Electrification, having produced about 20 such machines, has stopped production of them.

Vibrating extractors, which hang from cranes, are the most successful. The DP-6S vibrating loosener, the most widely used machine, was developed as a result of cooperation between two institutes: VNIIStroydormash [All-Union Scientific Institute of Construction and Road Machinery] (the design) the All-Union Scientific Institute of Railroad Transport (the parameters). Since 1970, these machines have been produced by the Trud machine building plant, in Novosibirsk, of the USSR Ministry of Nonferrous Metallurgy; the Kuybyshevsk Test-Mechanical Plant of the USSR Ministry of the Construction Materials Industry and the Strommachina plant, of the Ministry of Construction, Road and

Municipal Machine Building, in Chelyabinski. Over the last 10 years, over 600 vibrating looseners (the later model is the V1-643) have been produced. However, almost all of the machines have gone to enterprises of these three ministries.

The "Ural TsNIISOZ" vibrating extractor, designed to meet the needs of the Ministry of Railways, is produced by the Alatyr Mechanical Plant of the Ministry of Railways. But in what quantity? Twelve machines a year, while total railroad demand is 500 machines.

The crane-mounted extractors are of simple design and their implementation does not involve large capital investments. They can be used in almost any unloading area, as long as there is a crane and electricity. The vibrating extractor can immediately and without great difficulty at least partially solve the problem of mechanizing the unloading of frozen materials, since each machine can actually do the work of 10-12 workers. Therefore, enterprises are literally chasing after these machines.

It is our duty to get series production going--not less than 300 machines a year--of these proven and perfected vibrating extractors.

An important and difficult problem, mechanizing the unloading of rail cars with frozen bulk freights, can and must be solved.

12595
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INNOVATIVE VENTILATION SYSTEM FOR TASHKENT METRO

Moscow GUDOK in Russian 18 Apr 84 p 2

[Article by B. Aksanich, engineer, Tashkent: "The Metro Takes... A Breath"]

[Text] One pretty-much forgotten song about metros notes that "it's cool there in summer, and warm in winter!" The atmosphere in the metro is one of the comfort aspects that we consider a necessity. And at times we don't realize how difficult it is to ensure that comfort.

Trains, electrical equipment and tens of thousands of people carry a tremendous amount of heat. The soles of our shoes carry in dust and dirt. All of this enters into the underground space. Try to imagine a metro in a hot city such as Tashkent. Special measures are necessary to prevent the metro from "suffocating" from heat and dust.

"Usually," says Candidate of Technical Sciences G. Khabibi, senior scientific associate of the Tashmetroproyekt Institute, "excess heat and dust are removed by purging the tunnels. The old air is replaced by cooler air from outside. This is what they do in northern regions, especially in winter. However, such measures will not work in cities located in hot regions. You can't get by just with purging. Also, artificial air conditioning is needed."

In order to realize a solution, the Tashkent Metropolitan specialists used unique construction-engineering installations. For the first time in domestic practice, various types of ventilation systems featuring forced cooling of incoming air were used. Therefore, even on the hottest days, metro passengers feel the bracing coolness of the underground microclimate.

The coolness is achieved in the following manner. Hot outside air is forced by fans to pass under an artificial rain. After passing 2,000 water nozzles, the air is improved, bringing it up to the necessary levels of humidity and purity. The metro takes a breath.

The present method of cooling air is, unfortunately, expensive. Therefore, Tashkent scientists and specialists have developed a basically new and cheaper air supply unit: the rotary humidifier.

The new equipment consists of a number of small rotating disks filled with polyethylene fibers. These fibers have microscopic moisture-conducting pores.

They are the heart of the unit. When the lower parts of the disks are immersed in water, they collect moisture. When the disks are turned upward into the air flow, the moisture evaporates. Thus, the air is not only humidified, but also cooled and cleaned of dust.

The rotary humidifiers are compact. They use significantly less material than previous units and use less energy than nozzle changers. The electricity consumption alone is reduced by 60 percent. They occupy only half as much working space as previous units, which is very important for underground installations.

The first test-production rotary humidifiers have already been tested in the Tashkent Metro, as well as in "hot" shops in the local tractor plant. The savings for one metro station were 50,000 rubles.

The test results were satisfactory. The units lowered the temperature of the outside air from 36 to 18°C. They proved to be operationally reliable and convenient. A working model of the Tashkent rotary humidifier was recently shown at the Exhibition of USSR National Economic Achievements and was awarded a bronze medal.

The Tashkent specialists are certain that their design will find wide application in many of the country's metros, especially in southern cities such as Baku, Yerevan and Tbilisi. It will also be useful in subway tunnel construction.

But that's not all. The new humidifiers have been chosen for use in the traction-stepdown substations for cooling the electrical equipment. They will also be used in plant shops, depots and public buildings in the southern regions of the country. The scientists have received many requests for drawings and descriptions of their unit. Everyone needs clean air.

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MARITIME AND RIVER FLEETS

1ST DEPUTY MARITIME FLEET MINISTER ON 1983 SECTOR PERFORMANCE

Moscow MORSKOY FLOT in Russian No 3, Mar 84 pp 2-5

[Article by V. Tikhonov, first deputy minister of the Maritime Fleet: "Not to Lose the Mood" under the heading: "60th Anniversary of the USSR Maritime Fleet"]

[Text] Passing into history, 1983 left a good memory about itself. The Soviet people can take pride in that. The country distinctly forged ahead in all directions in economic and cultural development. The natural resources of Siberia and the Far East are being successfully exploited, the Baikal-Amur main line railroad is being completed, and the gigantic gas pipeline from Urengoy to Pomary to Uzhgorod was built ahead of schedule. The production of agricultural products was increased. All this is the result of the intensive work of the Soviet people, of the step-by-step accomplishment of the Party's policy for the more efficient utilization of the potentials and advantages of the development of socialism and of the strengthening of discipline and good organization in all spheres of the life of society.

The beginning of a year, figuratively speaking, is the beginning of a journey. Starting out on the journey, we live with new conceptions, aspirations and plans. They gladden and excite us. They gladden us because our plans for the fourth year of the Five-Year Plan are large and still higher goals are before us. The December 1983 Plenum of the CPSU Central Committee basically approved the projects of the State Plan for the economic and social development of the USSR and the State Budget of the USSR for 1984. The USSR Supreme Soviet in its next session discussed and approved them. The Plan and the Budget respond to general Party policy and they serve the fundamental interests of the Soviet people.

An important condition for successful constructive work is peace. The peaceful policy of the CPSU and the Soviet government has the resolute support of the workers of our country and of the whole world. Expressing serious anxiety in connection with the sharp aggravation of the world situation, the stirred-up growth of militarism, and the agressiveness of imperialist forces, primarily the U. S. A., the USSR Supreme Soviet resolved to approve, wholly and completely, the declarations of the General Secretary of the CPSU Central Committee and the Chairman of the Presidium of the Supreme Soviet of the USSR, Yu. V. Andropov, of 28 September and 24 November 1983, which gave a deep

and thorough evaluation of the reasons why the current complications of the international situation have arisen, and which confirmed the Soviet Union's unchanging policy of preserving and strengthening peace, restraining the arms race, and broadening and deepening cooperation between states.

Performing their own difficult but honorable duty on the expanses of the world's oceans, in the ports, and at the ship repair plants, and reliably assuring the economic connections of our country with scores of countries of the world, the collectives of maritime transport, closely united around the native Communist Party, with shock labor will bring in their contribution in the struggle for peace throughout the whole world.

The materials from the Plenum, the speech of Yu. V. Andropov, and the decisions of the session of the Supreme Soviet were received by the workers of our country and by all workers in maritime transport with deep satisfaction and warm approval, and are regarded as a large contribution in the development and carrying out of the Party's consistent policy for strengthening the economy of the country, moulding the new man, and preserving peace on earth.

Realizing the historic decisions of the 26th CPSU Congress and the subsequent Plenums of the Central Committee of the Party, and the instructions of Yu. V. Andropov at the November 1982 and June 1983 Plenums of the CPSU Central Committee, the toilers of maritime transport achieved successful fulfillment and overfulfillment of the plans and socialist obligations for 1983 and for the three years of the eleventh Five-Year Plan. Many patriotic undertakings for increasing the efficiency and quality of work and for more complete utilization of productive resources got widespread dissemination.

Important work on the transportation provisions for the agricultural industry complex, and the Food Program as a whole, was carried out. Pipes and equipment for the gas pipeline from Urengoy to Pomary to Uzhgorod were transported and shipped to destination on time. In exceptionally complicated ice conditions of the 1983 Arctic navigation season, thanks to the courage and determination of the crews of the icebreakers and cargo ships and the workers of the ports and port localities, the delivery of cargoes to the remote regions of the country was successfully carried out with minimum losses.

All the steamship companies fulfilled the plan assignments established for them in 1983 (Table 1). The collectives of the Baltic and Black Sea Steamship Companies, competing against each other, coped well with the fulfillment of the plan and the socialist obligations. As usual, the leading place in coastal transport remains with the Caspian Steamship Company. More than 36 percent of the total volume of this haulage fell to them. Although the Far East Steamship Company's portion of coastal transport was somewhat lower, the problems which confront the Far Easterners, in complexity, far exceed the problems of the Caspian seamen. The sector achieved substantial volumes of freight haulage on foreign trade contracts of the USSR with socialist countries and with the developing countries of Asia, Africa, and Latin America. Millions of tons of various food and industrial cargoes and also

Table 1

Fulfillment of the Plan for 1983 by the Steamship Companies According to the Principal Kinds of Activities

Steamship Company	Coastal haulage (percent)	Haulage in foreign navigation (percent)	Loading and unloading operations in ports (percent)
Northern	110.1	100.1	104.6
Murmansk	106.4	101.6	107.2
Baltic	-	101.1	105.2
Estonian	109.2	104.6	110.6
Latvian	116.3	103.2	103.4
Lithuanian	-	104.4	102.9
Black Sea	103.9	101.0	103.2
Azov	101.1	100.5	104.4
Novorossiysk	104.2	102.2	102.0
Georgian	103.8	103.8	100.7
Caspian	100.7	107.8	101.1
Soviet Danube	104.3	101.3	101.8
Far East	105.8	100.2	106.2
Maritime	100.4	101.3	-
Sakhalin	101.4	105.1	104.6
Kamchatka	100.7	101.0	105.0
In all for the Ministry of the Maritime Fleet*	102.8	101.7	104.1

* The Central Asiatic Steamship Company fulfilled the 1983 plan: in tons by 104.3 percent, in ton-miles by 125.6 percent, and in loading and unloading operations in ports by 129.7 percent.

machinery, pipes and equipment were transported in USSR foreign trade with the developed countries, although this work was hampered in a number of cases by serious obstructions on the part of determined, aggressive and anti-Soviet circles in the U. S. A. and several other countries who are members of NATO.

In 1983, in comparison with 1982, fund yield in the maritime fleet was improved and profitability was increased thanks to the introduction of the latest achievements of science and technology, to a growth in labor productivity, and to improvement of the management of the transportation process. But this does not mean that all possibilities for improvement have been exhausted. Analysis of the activities of the most important subdivisions of the sector shows the presence of important potentials for further growth in fund yield and profitability.

Despite the fact that the planned haulage of freight in containers and packets and on pallets was overfulfilled in all kinds of navigation and that the total volume of this haulage reached 21.4 million tons in 1983, the potentials for increasing the effectiveness of the operation of the specialized fleet clearly are not being sufficiently exploited.

One of the important spheres of activity of maritime transport is the transportation of passengers in all kinds of navigation. In 1983 the volume of this transportation exceeded 51 million persons. The quality of service to passengers was improved on the ships and at the marine terminals. More than 50 percent of passenger transport fell to the liners and ships of the port passenger fleet of the Black Sea Steamship Company. In second place was the Novorossiysk Steamship Company, and in third, the Far East Steamship Company.

The results of the operation of the maritime fleet in 1983, in general, were not bad and they improved the sector's position in the matter of fulfilling the Five-Year Plan assignments for economic and social development.

According to the results of the operations over the three years of the Five-Year Plan, the collectives of workers in maritime transport have a good surplus. On the whole, the 1981-1983 plans of the ministry have been fulfilled ahead of schedule (Table 2).

According to the work of the ship repair plants, the plan for the three years of the Five-Year Plan was fulfilled by the sector by 100.5 percent, and according to the profits from the principal activity, by 104.8 percent. The capital investments in the development of the shore base of the maritime fleet grew by more than 21 percent compared with the three years of the 10th Five-Year Plan. The amount of dwelling construction for seamen, port workers, and workers of ship repair plants and other enterprises and the organizations of the industrial sector during this time amounted to 657,800 m^2.

"Now it is most important" noted Yu. V. Andropov in a speech at the December 1983 Plenum of the CPSU Central Committee, "not to lose the gathered speed, the general positive mood toward business, and to actively develop positive processes."

Table 2

Fulfillment by the Steamship Companies of the Plan for three years of the Five-Year Plan (1981-1983)*

Steamship Company	Coastal haulage (percent)	Haulage in foreign navigation (percent)	Loading and unloading operations in ports (percent)
Northern	105.2	101.6	105.7
Murmansk	104.0	102.1	104.9
Baltic	-	101.9	106.3
Estonian	103.0	110.4	106.8
Latvian	117.1	103.1	105.1
Lithuanian	-	103.0	102.2
Black Sea	128.0	102.3	103.4
Azov	104.4	102.7	104.4
Novorossiysk	111.5	101.2	105.5
Georgian	102.4	103.3	106.9
Caspian	101.9	125.0	101.9
Soviet Danube	107.1	102.8	101.7
Far East	106.1	102.9	103.8
Maritime	101.1	102.3	-
Sakhalin	102.0	108.2	102.9
Kamchatka	100.5	102.5	104.6
In all for the Ministry of the Maritime Fleet	104.3	102.9	104.1

* According to current data.

One of the priority problems in the plan for 1984 is an increase in the productivity of labor. The assignment of the Party to increase labor productivity by one percent above plan and to reduce the cost of production by one half of one percent,which has found wide response from all the toilers in the national economy, places serious demands on the collectives of the sector.

A most important condition for successfully fulfilling the plans is good organization in the practice of socialist competition, including international socialist competition.

It is well known what great importance V. I. Lenin attached to a widespread practice of duplicating advanced know-how. "....We can and we must" he wrote, "achieve this, so that the force of example, first of all, will become moral, and then a compulsorily introduced model for the labor system in the new Soviet Russia."

The decree of the CPSU Central Committee "On the improvement of the organization and practice of summing up the results of socialist competition and the encouragement of its victors" gives clear directions for carrying out this work and it requires that qualitative indicators be regarded as of paramount importance.

The initiators of competition in maritime transport and, along with them, the majority of the labor collectives of the sector, took upon themselves the increased socialist obligations which underlie the obligations adopted for the current year for the sector as a whole.

In the past, the collectives of the Black Sea and Baltic Steamship Companies, the Novorossivsk Ship Repair Plant, and the Port of Murmansk have repeatedly occupied the leading place in the results of the All-Union socialist competition. These collectives have something to be learned. The experience of their operations should by all means be popularized and imitated although they also have their own deficiencies and derelictions; namely, the disruption of plans and schedules, a lower rate of reducing accidents, emergencies, and commercial waste in operations, and the disruption of labor discipline, etc.

The fact that in the past year, according to the results of the All-Union socialist competition, such large steamship companies as the Far East, Azov, Northern, and Murmansk have rarely occupied prize places and the good work of the Georgian and Central Asiatic Steamship Companies has been registered only once,gives rise to definite alarm. In these steamship companies,apparently, in the race for quantitative indicators, the qualitative ones are sometimes overlooked, and insufficient attention is paid to the resolution of social matters which occupy one of the central positions in the indicators of socialist competition.

It will not be considered a mistake that the successful work of maritime transport depends primarily on the efficient use of ships - the principal links in the transportation process - and on the work of the ships' crews - these are the primary working units of the fleet.

In the sector there are now more than 1700 cargo ships having a total deadweight of a little less than 20 million tons. Over 92 percent of the freight turnover [measured in ton-miles] is from haulage in foreign navigation. From year to year the power of the Soviet merchant fleet is growing in international shipping communications. From the Soviet seaman, not only is high skill and thorough knowledge of his business being required, not only a maximum of staying power in the struggle with oceanic elements, but also a strong ideological hardening, Party spirit, and selfless devotion to his homeland. Soviet seamen have these qualities in abundance.

Well-known in the fleet is the crew of the Baltic motorship "Vladimir Il'ich" which began its career in the year of the 100th anniversary of the birth of V. I. Lenin. Coming forward as an initiator of socialist competition in the sector for increasing the efficiency and quality of work, the seamen of the motorship decided to complete fulfillment of the Five-Year Plan by the 60th Anniversary of the USSR Maritime Fleet. The crews of the ships "Severodonetsk", "Marshal Govorov", "Elektrostal'", "Tanya Karpinskaya", and "Azerbaydzhan" brought in much of value in improving the transportation process and uncovering and utilizing hidden resources. They also came forward as initiators in the socialist competition of 1984.

Accelerated delivery of cargoes and their complete security, increasing effectiveness in the utilization of expensive specialized ships, further development of liner, containerized and packetized transport, economizing on fuel and materials, increasing gross revenues and reducing expenditures, safe navigation, a growth in labor productivity and a reduction of costs, and increasing the quality of passenger service in maritime transport - these are the principal obligations which the crews of the maritime fleet have taken upon themselves. Their fulfillment can and must be accomplished with the close interworking of the labor collectives of the ports and ship repair plants, with strong and reliable cooperation with interfacing kinds of transportation and with the principal clientele within the frameworks of the transportation centers.

In the decrees of the CPSU Central Committee "On further development and raising the effectiveness of the brigade form of organization and stimulation of labor in industry" and of the USSR Council of Ministers and the VTsSPS [All-Union Central Council of Trade Unions] "On measures for further development and raising the effectiveness of the brigade form of organization and stimulation of labor in industry", the whole growing role of the brigade in the acceleration and intensification of production was convincingly demonstrated, fulfilling the decisions of the 26th Congress of the Party and the subsequent Plenums of the CPSU Central Committee. In modern conditions, the brigade is becoming the national economic basis of production and the social unit of labor collectives in a number of industrial sectors.

It is necessary for the modern brigade leader to know about economic, educational, and labor legislation. The strengthening of the educational basis of the curriculum for brigade leaders, and the recruiting of experienced teachers for them is foreseen. The Ministry of Higher and Specialized

Secondary Education of the USSR, together with interested ministries and departments, has been entrusted with the organization in higher and secondary educational establishments, of training, in shortened periods of instruction, of engineers and technicians from among qualified workers having worked as brigade leaders for not less than three years. Maritime transport should also think about this.

Right now in the ports there are more than 500 reinforced comprehensive brigades (UKB) in which almost 84 percent of the dock workers and cargo-handling machine operators work. It is necessary, boldly, to convert the UKBs into independently accountable units with all the ensuing obligations and responsibilities. Meanwhile, there are now only about 200 such brigades. Questions also arise in the determination of the optimum size of an independently accountable UKB which varies from 16-20 up to 250 or more persons. The size of a brigade should be selected so that they will not cease to be manageable. The primary Party and trade union organizations should be more effectively developed in brigades. This applies equally to UKBs at ship repair plants.

The brigade contract with the application of independent accountability is a practice whose value has been demonstrated in many industrial sectors. It must become the norm for work in maritime transport and a component part of work on improving the mechanism of management and strengthening discipline to guarantee the fulfillment of plans and the adopted socialist obligations.

Of interst is a proposal of a brigade leader of dock workers in the port of Nikolayev, P. Shura, about creating councils of brigade leaders in large ports. Much experience has been accumulated in Leningrad where an independently accountable brigade led by Ye. Chernenko, effectively applying a coefficient of labor participation (KTU), over the three years of the Five-Year Plan has processed with high quality more than 120 ships by the method of the brigade contract. The reinforced comprehensive brigades of the ports of Ilichevsk, Odessa, Murmansk and Vanino led by brigade leaders A. Baranovskiy, N. Tymuniy, V. Sokolov, and N. Shantsev are being used in maritime transport with well-deserved fame. Competing under the slogan: "On every work shift, the highest labor productivity", they were obligated in 1984 to process 380,000 tons of freight above the assignment and to assure ahead-of-schedule fulfillment of the plan. The personnel of the reinforced comprehensive brigades of the Odessa imeni 50 Years of the Soviet Ukraine and Nakhodinsk ship repair plants led by P. Shulikov and L. Sidorchuk were obligated to turn out above plan production in the amount of 25,000 rubles NSO [Standard Cost of Processing ?].

The brigade contract more and more surely is earning itself a place in the work of the ports. It is the duty and obligation of the collectives in the ports, steamship companies, administrations and associations of the Ministry of the Maritime Fleet and the subdivisions of the worker trade unions of the maritime and river fleets to give this movement a full legal basis and to provide for the generalization and dissemination of the advanced know-how.

Advanced know-how, first of all, is a fact of an exemplary organization of business; it is perfected technology, and the mastery of solutions for industrial problems by optimum methods. Its value is increased tenfold if it is not shut up in individual enterprises. In their work, the labor collectives of maritime transport are compared on the outstanding workers, the initiators of All-Union socialist competition, who take upon themselves increased socialist obligations.

It is important, so that the word is not at variance with the deed, that the staff of the sector, all of its administrations, associations, and divisions together with Party and trade union organizations provide daily assistance to the subdivisions of maritime transport in their work on fulfilling the plans and the adopted socialist obligations.

At the same time, the popularization and dissemination of advanced know-how must be strengthened through the sector's mass media - newspapers, journals, and radio bulletins. The capabilities of V/O [All-Union Association] Morteknhinformreklama [Maritime Technical Information Publicity] must be used widely for the effective publication of brochures about outstanding workers and for exhibiting the work of maritime transport at the All-Union Exhibition of the Achievements of the National Economy of the USSR.

One of the urgent requirements of life today is to accomplish a transition to a new, higher level in the education and training of personnel. All the labor collectives of the sector are deeply interested in their professional growth and ideological hardening. The personnel play the leading role in the fulfillment of plans and socialist obligations.

These days, the CPSU Central Committee's project: "Principal directions for reforming the general education and professional schools" is being publicly discussed. Great possibilities for drawing together the general and professional education of youth have been outlined in a wide usage of the workshops of the professional and technical schools and in the development of new forms for training qualified workers in a system of educational schools, training centers, and night PTY [professional and technical schools]. This permits setting up a connection of general education with professional and technical schools and with production in organizational, educational-and-industrial, and methodological relations.

Annually new specialists arrive on ships and in the ports and ship repair plants. Young people up to 30 years of age make up 60 percent of the complement afloat. Much attention should be given to the training of personnel so that new replacements for the maritime fleet will be fully up to the problems confronting the sector.

When this issue of the journal reaches the readers, the results of the elections to the USSR Supreme Soviet will be known. Everyone to whom the nation has entrusted the title of deputy to the Supreme Soviet of the USSR is faced with the huge organizational task of realizing the decisions of the December 1983 Plenum of the CPSU Central Committee and the ninth session of the USSR Supreme Soviet for the tenth summons. In the ability to organize

the people, to inspire them to solve state and public matters, to struggle for the purity of our moral ideals against bureaucratism and dishonesty and to affirm the Soviet way of life - in these the voters will see the main achievements of the deputies. The standard here is devotion to the business of the Party and the nation, and complete delivery of their strength and knowledge to the service of the Soviet state.

The workers of the maritime fleet heartily congratulate the deputies to the high institution for the government of the country, and they wish them success in their work in the name of the prosperity of our homeland.

In January an expanded meeting was convened of the Board of the MMF [Ministry of the Maritime Fleet] and the Presidium of the Central Committee of the trade unions of the workers of the maritime and river fleets. At the meeting, the results of the Ministry's operations in 1983 were considered in detail in the light of the decisions of the December 1983 Plenum of the CPSU Central Committee and the speech at the Plenum of the General Secretary of the CPSU Central Committee and Chairman of the Presidium of the USSR Supreme Soviet, Yu. V. Andropov. Put before the sector was the problem of increasing, in 1984 as compared with 1983, foreign haulage by 6.3 percent, profits from principal activities by 4.9 percent, and of fully satisfying the national economic demands for hauling freight and in particular in the remote regions of the country having limited navigation periods. For the development of the sector, capital investments were appropriated in the amount of 1514.6 million rubles. It was projected to reinforce the fleet with 49 ships having a total deadweight of 746,000 tons, to build 1,675 meters of pier frontage, and 237,000 square meters of living space for seamen and shore workers. Because of an increase in the productivity of labor, 69.4 percent of the increase in haulage and all of the increase in loading and unloading operations in ports should be provided for. It is specified to haul 700,000 tons of freight above the plan in coastal navigation, to overfulfill the plan for haulage in foreign navigation by 0.75 percent, to exceed the planned volume of loading and unloading operations in ports by 1.7 million tons, and to transport 300,000 passengers above the plan.

In the adopted socialist obligations, much attention was given to fulfilling the Party's assignment to increase the productivity of labor by one percent above plan and to reduce costs of production by 0.5 percent. Also considered were: the matters of increasing the volume of haulage and the operational periods of work for the fleet, the matter of accelerating the processing of rail cars in ports, of increasing the quality and efficiency of the utilization of transport equipment, and of the fulfillment of plans and obligations on questions of the social development of the sector.

The results of work for the first months of the year indicate that the majority of the enterprises and organizations of the sector have made a good start. There is no doubt that in preparing to celebrate suitably the 60th Anniversary of the Formation of the Maritime Fleet as a sector of the national economy, the collectives of maritime transport will turn 1984 into a year of shock labor making a substantial contribution to further strengthening the economic and defensive might of the Soviet state.

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OPERATION OF IVAN SKURIDIN-CLASS RO-RO'S IN SEA OF AZOV

Moscow MORSKOY FLOT in Russian No 3, Mar 84 p 40

[Article by A. Levit: "The Right-flankers"]

[Text] The wide opening of the "mouth" of the ship was striking to the eye even from a distance. Brand-new bright red tractors and variously colored "Lads", one after another, quickly rolled into the ship along a ramp dropped onto the pier, and were lost in the dark maw of the hull. The picture was impressive.

"Yes, you do not see such as this very frequently" said M. Chernovol, the first assistant captain of the motorship "Katya Zelenko". "And as regards the "mouth", you probably noticed it" smiled Mikhail Aleksandrovich. "In jest, the seamen have invented the command: 'Open mouth! Tongue on pier!'. And we can "gulp down" 517 light motor vehicles."

"Well, seriously, we in the steamship company already have become used to that."

The first-born among Ro-Ro ships of the "Ivan Skuridin" class in the Azov Steamship Company was the motorship "Znamya Oktyabrya". Then there was the "Katya Zelenko", the "Vera Khoruzhaya", and, not so long ago, the "Viktor Talalikhin." All were built at the Shipyard imeni Zhdanov in Leningrad. They were built well in a compressed period of time. It is sufficient to say that the "Katya Zelenko" has been sailing only since August 1980. And already after her, two more ships of the series have been accepted. All of them belong to the Independent Operational Group of Ships No. 3, the leader of which is N. Shelest.

"Motorships of this type" said he, "are intended for the transport of general cargoes. Equipment being transported by the ship is brought by lift trucks directly from the pier into the hold. Self-propelled equipment goes in by itself. Under such conditions, a complete processing of the ship is done in a maximum of two days which makes it possible to complete voyages rapidly, quickly delivering cargoes. The gain from using Ro-Ro ships is indisputable. This fleet can increase the throughput capacity of ports and ease the work of the longshoremen which, in turn, has permitted intensifying the processing of other cargoes. Specialists of our independent operational group of ships are trying to improve the style, methods, and means of managing this specialized fleet."

The crew of the "Katya Zelenko" is in the right-flank of the socialist competition of the ships of the steamship company. Thirty three seamen work in the friendly collective (the application of the Shchekinskiy method permitted cutting out one regular unit). The majority of them are communists or young communists. Half the members of the crew have higher education, the remainder, secondary-technical or secondary education.

For the seamen of the Ro-Ro ship, constant work on raising their qualifications and deepening their professional knowledge is a characteristic. Many are studying in higher educational establishments without stopping work. In only one educational institution, the OIIMF [Odessa Institute of Engineers of the Maritime Fleet], senior assitant captain N. Rodchenko, second assistant N. Podat', seaman N. Nesteruk, and motor man V. Rvadchenko are being taught by correspondence.

"Basically, we carry equipment, motor vehicles, tractors, heavy-equipment carriers, construction and other equipment to the developing countries of the Mediterranean. We go into the ports of Spain and Italy" continues Mikhail Aleksandrovich. "The construction of the hold permits such an accomodation and securing of cargo that it is delivered to the consumer without defects and in complete safety."

With captain V. Gomonenko at its head, a technical and economic council keeps under supervision all questions connected with the technical operation of the ship, safety, and the securing of the cargo. The council is assembled before every voyage, and plans its duration and financial indicators, and outlines measures for increasing its effectiveness. During a voyage, if the situation requires it, extraordinary sessions of the council are summoned. The precise organization of the work on the ship, both underway and during layovers in port, assists in achieving good results. The day before an unloading, the scheme of the operation is refined. It is specified just who is responsible for what and by whom and how the course of the cargo operations are being managed.

The constant search for savings which the collective of the "Katya Zelenko" is conducting is bringing in substantial results. From the first days, the Ro-Ro seamen have taken part in a general examination of the effectiveness of the use of raw materials, materials, and fuel and energy resources.

In the first place, they saw to it that the electrical plant was operated at its rated power. At the same time measures were developed for saving fuel. Innovators S. Golovko and V. Nazarov headed by V. Lychak were occupied with these matters. They did a great amount of important work and their achievements were studied by their colleagues on other ships of the same class. In 1982 alone, more than 100 tons of standard fuel and about 700 kg of lubricants were saved. Repeated use of fastening and packing materials became the rule and articles of technical supply were efficiently used by all members of the crew.

The seamen well understand the importance of economy for the further development of production. In the course of the examination, the collective achieved definite successes. Reliable monitoring of the operation of such expensive parts of the main engine as the cylinder liners was set up. The regulation of the fuel system was correctly accomplished in timely fashion. This permitted steadily sustaining a planned speed (as compared with the present designed speed practically never being lowered).

A well defined program for increasing the period of operation of the ship is being carried out. Funds for repair are being expended cautiously. Work amounting 20,600 rubles was carried out by their own efforts. Lashing of cargoes being done partially by the crew saved more than 19,000 rubles. The seamen themselves assisted the rapid unloading of the ship abroad. They sat down at the wheel of a vehicle and drove it out of the hold onto the pier.

The steady work of the collective of the Ro-Ro "Katya Zelenko" does not at all mean that all potentials for raising the efficiency of transport have been used up. It goes without saying that there still are many methods to improve the organization of the transport process. An important potential, for instance, is further curtailing the layovers of Ro-Ro ships in domestic ports. It is necessary to improve the supplying to the ship of spare parts for the main engines and for the means of automation.

"Well developed co tacts with the economists of the KhEGS [Independent Operational Group of Ships] helps us, says captain V. Gomonenko. "With their help we analyze the financial results of voyages and project ways of increasing the profitability of transport."

It seems to us that the crew is following a correct course. Before it are new ocean pathways.

9136
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IMPROVEMENTS IN OIL TANKER FLEET OPERATIONS PROPOSED

Moscow MORSKOY FLOT in Russian No 4, Apr 84 pp 30-32

[Article by A.Kazimirov, deputy chief, Transportation and Operation of the Fleet and Ports MA, Ministry of the Maritime Fleet (Glavflot): "The Reserves of the Tanker Fleet"]

[Text] In spite of the new crisis in the economy of capitalism which began in 1980 oil production remains huge. According to the magazine PETROLEUM ECONOMIST world production of crude in 1982 was 2.7 billion tons. A substantial part of the oil as well as of petroleum products is transported by sea in tankers. The overall deadweight tonnage of the world tanker fleet as of January 1, 1983 was 317 million tons, including our country's 7.1 million tons.

Naturally, the specialization of shipping lines by region and of tankers in haulage of this or that type of oil cargoes depending on volume and consignment specifications is a complex task.

The problem is being tackled in a variety of ways. Chief among these are: adhering to a continuous plan-schedule of fleet traffic, aiming at optimal distribution of cargo flows between specialized shipping lines transporting cargoes by way of consecutive runs, processing tankers in ports of loading in accordance with a continuous plan-schedule for oil-transshipment complexes and servicing tankers on the basis of technological schedules.

The continuous plan-schedule of fleet operations (NPGRF) serves as the basis for better utilization of the carrying capacity of the fleet and the handling capacity of ports by improving operational planning and work organization. With the introduction of the NPGRF for tankers the opportunity presents itself to foresee and evaluate the work conditions the tanker will face beyond the time frame of a given voyage, to optimize route selection and to maneuver in the changing circumstances and market conditions governing the transportation of foreign charterers' cargoes. Since 1979, the first year of work under the NPGRF, tanker fleet revenues have been growing year after year.

The NPGRF likewise permits the prognostication of plan fulfilment by the quarter: not only is the volume of freight carried determined through gross (approximate) normative indicators, but so

are the revenues and costs of every voyage for 20 days ahead. However, in spite of the significant achievements in the use of the NPGRF, the system's potential is much greater. In our opinion, further growth in the effectiveness of the tanker fleet must be based on better work-to-schedule and heightened responsibility for freight haulage. At the present time the fleet is finishing its transition to operating on the basis of 3-month commercial schedules. The extension over a longer period of commercial responsibility for providing tonnage and oil cargoes will allow to envisage with greater certainty and thereby optimize the deployment of tankers to carry export freight, as well as to undertake with greater confidence the haulage of cargoes for foreign charterers. It is no less important to improve computer control of the plan-schedule by unifying all information about cargoes on the approach to port petroleum-transloading bases, about the volume of freight in ready-to-load receptacles and about incoming foreign tonnage charged with taking on cargoes stipulated for haulage by the buyer.

Especially great is the potential in this respect of the Novorossiysk Shipping Line which at present freights tankers in accordance with a continuous plan-schedule of petroleum transloading complex operations (NPGRNK) where all this information is available, though as yet in the unformalized variant. The imminent commissioning in Novorossiysk of a new computer center will provide the line with some very promising options.

An important factor in increasing the effectiveness of oil-cargo haulage is the regularity of tanker voyages between specific ports. This type of run makes for safer voyages, especially in the navigationally difficult regions of the Baltic and North Seas, as well as for intensification of ship processing thanks to the ports' better mastery of definite tanker types which visit them on a regular basis.

Furthermore, many of the world's ports offer discounts on port charges to ships that call frequently. Thus, in Sweden the port of Trelleborg levies monthly dues only ten times a year, Uddevalla - nine times and Varberg - ten times; after ten calls to the Belgian port of Antwerp port charges are reduced by about a third; in Italy the ports of Spezia, Leghorn and Ancona charge anchor dues only three times a year.

This opportunity to streamline the work of the fleet is used with particularly good effect by the Latvian Shipping Line. In 1982 it cut costs by more than 1.2 million rubles on reductions in port charges. Nevertheless, the overall use of this source by the fleet is inadequate. Even the Latvian line hauls no more than 20 percent of its total cargo volume on consecutive runs; the Novorossiysk

and Georgian lines completely disregard this form of improving fleet performance.

Glavflot is working to achieve the specialization of shipping lines by area of operation and type of haulage. The initial step is to assign tankers to fixed routes, but current efforts must be significantly improved in order that this type of fleet operation produce perceptible gains.

An important contribution to the assimilation of consecutive voyages and the NPGRNK is a transition from monthly to quarterly schedules for the provision of tanker space and freight to ports of lading, with the assumption of commercial responsibility by the parties concerned for cargo and carrier readiness. The present need for such a transition is dictated by the most recent party and government directives which devote special attention to economics and labor and technological discipline on the part of cooperating enterprises.

A major source of greater tanker efficiency is the expansion of freight nomenclature. For a long time now tankers have been transporting vegetable oils, industrial spirits, treacle and other fluid products. The cost of adapting an ordinary tanker to their haulage is insignificant, but the financial benefits are quite substantial. In 1983, for example, over 850,000 tons of vegetable fats and oils were carried on ballast runs, which resulted in a rise of about 1.2 percent in the tanker fleet's efficiency and saved scores of millions of rubles on foreign charters.

At the present time the nomenclature of fluid cargoes is being continuously enlarged by various chemical substances and liquified gases. Naturally, these shipments require specialized craft. The Ministry of the Maritime Fleet today uses modern gas carriers of the "Yurmala" and "Mossovet" class (freight-carrying capacity 3600 and about 50,000 tons respectively) which can transport ammonia and other petroleum gases under low temperatures in liquified form. There are in all about 570 shippable types of liquid chemicals in the world today.

To comply with stricter regulations on preventing environmental pollution the USSR Registry of Shipping introduced a set of Rules for the classification and construction of chemical tankers. These rules, which took effect on July 1, 1978, reflect the guidelines laid down in the IMO's Code of Recommendations covering the design and equipment of ships carrying dangerous chemical cargoes in tanks.

All freight cleared for transportation in chemical tankers built and equipped in accordance with these Rules is subdivided into three categories by degree of flammability. The biological hazards of chemical cargoes are covered by the Rules in their demands on the ship's structural protection, type of tanks, noxious fumes warning systems, etc. For example, the most dangerous cargoes must

be transported in tankers with a dual hull and inner tanks of stainless steel. Naturally, such craft cost many times more than tankers that carry ordinary petroleum products, but industrial necessity makes their use inevitable.

In addition to gas-carrying tankers, the Ministry of the Maritime Fleet has tankers to transport fluid chemicals. The fleet expansion program calls for further construction of this type of craft.

In its continuing struggle to protect the environment the international community urges all states to introduce more and more limitations on the haulage of cargoes in general and fluid cargoes in particular. On October 2, 1983 the demands of MARPOL Convention 73/78 went into effect. What with today's substantial surplus of tanker space (50 million tons deadweight at the end of 1982) these requirements impose a heavy burden on lines which operate tankers of more than 40,000 tons deadweight.

It should be pointed out here that the struggle against environmental pollution in our country began long before the world community came to the conclusion that the cause called for joint efforts. Naturally, in the Soviet Union the problem of environmental pollution by tankers was resolved the most effective way (from the point of view of economics) - by building onshore facilities. It has been calculated that the costs of purifying a unit volume of sea water aboard a tanker and onshore correlate by a ratio of 10 to 1. Purification facilities have been erected in the ports of other countries as well, but shipowners, mindful of the steep rise in many ports of fines for bringing in polluted ballast, chose to limit their dependence on coastal facilities by furnishing their vessels with tanks for clean ballast and with other equipment.

Nevertheless, MARPOL Convention 73/78, recognizing the availability of purification facilities in a number of countries, permits the operation up to 1986 of tankers over 40,000 tons deadweight to the full extent of their capacity provided the port of unloading is equipped with purification facilities and an agreement to that effect has been signed by the governments of the cargo's supplier and consumer.

This opportunity was seized by the Novorossyisk Shipping Line. It complied with all the demands of MARPOL International Convention 73/78, especially Rule 13 "c" of Addendum 1, and uses tankers of the "Sofia" and "Leonardo da Vinci" classes to the maximum of their capacity. This allowed the line to preserve 240,000 tons of cargo space which resulted in an annual savings of about 15 million rubles.

Somewhat worse is the situation with port and purification facilities for reception of washaway fluids and polluted ballast after liquid chemical cargoes.

The complexity of the problem stems from the fact that in our country chemical transloading port complexes are run by departments not directly involved with prevention of environmental pollution. For example, the ammonia transloading plant in the port of Yuzhnyy belongs to the Ministry of Mineral Fertilizer Production, and the transloading complex in the port of Ventspils handles cargoes owned by the Ministry of the Chemical Industry and other ministries. In spite of the Ministry of the Maritime Fleet having introduced Rules and Conditions for the turnover and reception of washaways of liquid chemical cargoes carried in tanks, the above-named ministries do not take adequate measures to comply with this mandatory technological operation. As a result, many tankers take their washaways to foreign ports where their turnover is effected at the shipowner's expense at high rates and involves the total loss of the basic ingredients which too have some material value.

The question of bringing purification, storage and technological facilities into line with the current demands of conventions and laws aimed at protecting the environment is of no less importance for the transloading complexes of the Ministry of the Petroleum Industry, the State Committee for the Supply of Petroleum Products and other departments that use the services of maritime transport. That is why the Ministry of the Maritime Fleet keeps insisting that they take appropriate measures to ensure high-quality and prompt processing of the costly tanker fleet of today.

The importance of all these questions manifests itself especially acutely when delivering tanker cargoes to Arctic ports and landing wharves. Under the extreme ice conditions in the Eastern Arctic during the navigation season of 1983 it was only the presence of a huge number of icebreakers (especially the nuclear-powered ones) that allowed the delivery of cargoes to these areas, though with substantial losses. As a matter of fact, if the RSFSR State Committee for the Supply of Petroleum Products and Ministry of the Chemical Industry enterprises had readied the petroleum cargoes at their transloading complexes in the port of Nakhodka on time, these losses would have been much smaller.

12753
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HISTORY, OPERATION OF BALTIC SHIPPING COMPANY

Moscow MORSKOY FLOT in Russian No 4, Apr 84 pp 7-11

[Article by V.Kharchenko, chief, Baltic Shipping Company; "Baltic Seamen on Pre-Jubilee Shift"]

[Excerpt] The war brought heavy losses to the line. Six vessels were interned, ten sunk. Only four ships remained in service when hostilities ceased: the "Baltika", "Chelyuskinets", "Otto Schmidt" and "Kazakhstan", but by the start of the 1945 navigation season the line's fleet consisted of 26 units thanks to rehabilitated ships and reparation deliveries.

Socialist competition unfolded in the very first postwar years. It helped raise productivity in the fleet and accelerate the tempo of reconstruction work in the port of Leningrad. The amount of freight carried in 1947 exceeded the prewar 1940 level almost fourfold. The first postwar years saw the Baltic shipping fleet grow at a rapid rate. By 1950 it had 95 ships.

Subsequent five-year plans were marked by the further development of the Baltic maritime fleet. Its work became better coordinated, which led to more efficient use of material and labor resources. The geography of freight haulage expanded. Baltic ships began voyages to the Great Lakes ports of Canada and regular runs to Brazil, Uruguay, Argentina, Cuba and West Africa. The company broadened its commercial activities. Petroleum transshipment bases were built in Ventspils and Klaipeda, old warehouses were reconstructed, mooring space increased in yardage and area. The ship-repair yards at Klaipeda, Loksa and Riga underwent substantial modernization and the volume of work done by the Kanonerskiy shipyard multiplied.

In the late sixties the Baltic company was the first to take part in the organization of joint international freight policy coordination centers, the so-called "booking bureaus". One of the first such bureaus incorporated the Baltic Shipping Company, Sovfrakht and the Polish Ocean Lines. An agreement was signed establishing the joint freight line Baltamerika headquartered in Gdynia. The contracting parties allocated 8 ships each to the new line which began service on August 1, 1968.

During the eighth five-year plan organizational improvements in management continued. Special attention was given to cost accounting, new port technology and the technical renovation of the fleet. Line voyages developed apace. The company used 4-5 times more ships in its line sector than in 1965. Line freight increased in volume, and the profits these runs generated grew almost sixfold.

The introduction of packet cargoes in 1965 proved highly effective. It was pioneered on the Baltic by the crew of the s/s "Kolomna" under Captain S.Goncharov. Packeting allowed the dockers of Leningrad to cut their ranks by 40 percent yet handle each ship 2.5 times quicker. Productivity increased fourfold and the cost of handling a ton of cargo went down almost 30 percent.

The "Kolomna" initiative was widely disseminated. Packet shipments began on the Leningrad-London, Kaliningrad-Rostock, the Cuban and the South American runs.

Increasing revenues from principal operations, large above-plan profits, a steady rise in productivity and successes achieved in the All-Union socialist competition time and again allowed the collective to be proclaimed first in the industry.

For its major contribution to the development of sea transport, its successful implementation of the 8th Five-Year Plan and its service to the revolution and the war effort the collective of the Baltic Shipping Company was awarded the Order of the October Revolution.

In the 9th Five-Year Plan the line received 25 all-purpose and specialized vessels. With this buildup the number of automated motorships reached 60, another 26 units were automated by the company itself.

With the commissioning in the Leningrad port of the first section of a container terminal the volume of containerized cargoes greatly increased. At the end of the five-year plan period it stood at 33 percent.

Practical experience and scientific research allowed almost all the company's ships to switch in 1969 to a new system of technical maintenance. By 1974 the entire fleet of the company was working on a 4-year repair and operational cycle. In five years average ship-repair time fell 6.8 percent. The annual economic gain from extending operational time exceeded 2 million rubles.

About ten years ago the crew of m/s "Vladimir Ilyich" proposed the introduction of a unified shipboard technical services system. The initiative won widespread support. Specialists appeared who were skilled in several professions, a factor which facilitated the spread of the Shchekino method in the company.

The 10th five-year plan saw the active introduction in Leningrad of a system of coordinated work plans for the transport terminal which was jointly proposed by our seamen and port workers. This progressive system led to a 70 percent increase in the volume of freight handled by the port which required no additional capital outlays or workforce expansion. Over 90 percent of freight turnover growth was achieved through increased productivity on the piers. The direct transfer method accounted for over 73 percent of cargoes handled, and the volume of freight thus processed grew almost threefold. These progressive work methods helped lower the cost of handling a ton of freight, intensify ship processing, reduce railroad-car processing time and increase its mean static load. There has been a significant turn for the better in the quest for a more rational redistribution of cargo flows. More and more river vessels are now being used to take out freight delivered to the port by sea, and the proportion of automobile transport used for that purpose has increased fivefold. All this has freed tens of thousands of railroad cars and speeded up freight deliveries.

The Leningrad experience, which was endorsed by the CPSU Central Committee decree of March 24, 1978 "On work collaboration between the seamen, railroadmen, automobile and river transport workers of the Leningrad transport terminal", spread far and wide. This continuous plan-schedule system of work is being constantly developed and improved. It is at present evolving in a number of new directions. The search is aimed at implementing a plan to create a clockwork-precise all-Union system that would permit the delivery of containerized cargoes from "door to door". The groundwork for such a system is discernible, for example, in the organization of outgoing shipments and incoming deliveries of the Volga Automobile Association's products that stem from cooperation between the railroads, the "Avtoeksport" association of the Ministry of Foreign Trade, the Baltic Shipping Company and the Leningrad seaport. Contracts of a similar nature have been signed with other major enterprises of the Soviet Union covering both export and import cargoes.

In recent years the administrative apparatus of the Baltic line has been devoting much attention to the planning process in all its forms. Assigned to help resolve management problems was a whole info and computer center which as far back as 1970 switched from handling individual questions to the creation of an automated control system (ASU): the Baltic Shipping Company was named the pilot organization and its info and computer center the pilot developer of the ASU "Shipping". By 1981 the system was handling 44 groups of problems resulting in a combined savings of 1.4 million rubles. Almost all the problem categories being resolved today are standard model. The ASU is equipped with electronic computers of the third generation.

There was a time when the Baltic line had only one ship certified by Lloyds of London. Today all active and newly-commissioned vessels carry a USSR Registry of Shipping certification. These are for the most part specialized craft of the newest types with a high degree of mechanization and automation, unlimited range and designed to carry freight capable of being handled by advanced port technology. The living and working conditions of their crews conform to the much higher labor and health safety rules of today.

The line's fleet today plies a variety of freight routes and directions: to Australia and New Zealand, Central and South America, Africa and Europe. Its work is supervised by cost-accounting operational groups. Baltic ships work joint routes with the fleets of several maritime powers. A significant number does regular transoceanic runs. Round-the-world voyages with calls into many of the world's ports have become commonplace.

The presence in the company's fleet of medium and large-capacity container and ro-ro ships allows up to 60 percent of import and export cargoes between Soviet and foreign ports to be transported in packets and containers. Freight haulage across the Baltic and on Western European lines is fully containerized. The company's fleet services the Transsiberian Container Line which links European ports with Japan, the Philippines, Malaysia, and the Transcaucasian line between Europe, Iran and Afghanistan.

Two ro-flo ships of 5500 tons deadweight each that belong to the Baltic line are capable of taking aboard packaged freight units with a mass of up to 700 tons. They have made many voyages to various parts of the world. Over the last few years the company's ships have delivered much freight to the gas-pipeline builders of Siberia which helped complete important government assignments ahead of schedule. Large-diameter pipes, compressor stations, coke batteries, rectification columns were transported by company ships to Siberian river estuaries and handed over to river vessels in better time than planned. In the 1983 navigation season alone Baltic vessels arriving in the Gulf of Ob unloaded over 150,000 tons of steel pipe for Nadym, Novyi Urengoy, Medvezhiy and Yamburg. Doing their part in an important national undertaking, the seamen and dockers of Leningrad made every minute count, compressed time, as it were. To avoid no-load runs to pick up lumber at Igarka they sailed the Northern Sea Route with cargoes for the gas pipelines, and after unloading took on export lumber for the ports of Western Europe. Outstanding work was performed on these trips by the crews of the motor vessels "Dvinales", "Abakanles", "Arkhangel'skles", "Irtyshles" and "Turku". Specialized ships also mastered the Northern route. The "Stakhanovets Kotov", for example, made several successful northern runs with unique cargoes aboard. During the last Arctic navigation season the ship's crew managed to bring to the Yenisey estuary several huge rectification columns built by the Dzerzhinskiy Chemical Machine Building plant for the new oil refinery at Tobolsk. The vessel also took part in the delivery of unique oversize cargoes for new construction projects in Surgut.

Soviet and foreign agencies willingly charter the Baltic line's comfortable ships for cruises. Very popular with tourists are the passenger liners "Alexander Pushkin" and "Mikhail Lermontov". The passenger fleet was recently expanded by the addition to its ranks of the motorship "Ilyich" which is slated for service on the Leningrad-Stockholm line.

Many of the new motorships are named in honor of Baltic seamen who served the maritime fleet with selfless devotion. Their memories live on in the names of the vessels "Kapitan Gavrilov", "Anatoliy Vasil'yev", "Mekhanik Konovalov", "Stakhanovets Kotov".

Last year the country marked the 80th anniversary of the second congress of the Russian Social Democratic Workers' Party and the 65th anniversary of the movement for communist labor. To honor these red-letter dates the maritime fleet entered into broad socialist competition which was initiated by the crews of the Baltic company's leading ships "Vladimir Ilyich", "Skul'ptor Konenkov" and "Smolensk". The competition contributed to the successful completion of the third year of the five-year plan by November 21. The target figures for 1983 were achieved on December 28. Foreign trade freight haulage brought in 2,200,000 rubles of above-plan profits. Company ports processed over 800,000 tons of cargoes over and above the planned amount. The Kanonerskiy plant manufactured and sold 400,000 rubles' worth of industrial goods in excess of its assignment.

These successes are gratifying, they evoke in every toiler of the Baltic a feeling of justified pride, but the levels attained are by no means the ultimate.

At the December (1983) plenum of the Central Committee comrade Yu.V.Andropov stressed that "... there are more untapped reserves and possibilities in transport than anywhere else which can be brought into play in a very short time."

The seamen of the Baltic line are conscious of their role in the implementation of the directives handed down by the 26th congress of the party and subsequent plenums of the CPSU Central Committee. They are firmly resolved to multiply their achievements, to mark the coming years with new successes in intensifying production, raising the productivity of labor and improving the quality of their work.

The concrete task set before party and trade union organizations and labor collectives - to achieve an above-plan rise in productivity of 1 percent - is formalized in the socialist obligations of our line's collective for 1984 which express its resolve to up productivity by 1.2 percent.

Also listed in the obligations is a commitment to achieve an overfulfillment of the target figure for revenues from international

runs of 600,000 rubles by the day the industry celebrates its anniversary. The "Baltmorput'" administration is to complete 10 days ahead of schedule the formation of the aquatorium in the Novo-Tallinskiy port and dredging operations in the port of Klaipeda as part of the USSR-GDR sea ferry construction project.

This is only part of the plans for the fourth year of the current five-year plan and the industry's jubilee. Next April the collective will mark the 150th anniversary of the Baltic Shipping Company. By tradition they are applying all their forces and creative energy to welcome the jubilee dates in a fitting manner - with new labor achievements and victories.

12253
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FISHING FLEET DEVELOPMENT

TRANSPORT SHIP INADEQUACIES HAMPER FLEET EFFECTIVENESS

Moscow SOVETSKAYA ROSSIYA in Russian 28 Apr 84 p 2

/Article by V. Sungorkin, SOVETSKAYA ROSSIYA correspondent, and V. Frid'yev, correspondent of the newspaper RYBAK PRIMOR'YA (Maritime Kray Fisherman): 'Refrigerator Ship Lies at Anchor', which appears under the rubric, 'To Manage Diligently'/

/Text/ Fishing expeditions are similar to floating cities. Dozens, and even hundreds, of ships are assembled at the same time in the vicinity of the fishing grounds. That is why the radio airwaves are a bit crowded.

"Factory ships, factory ships," the fishermen wearily repeat, "we have big, fat herring. Who will take our catch?"

From a nearby fish-factory ship a vexed voice answers: "We would be glad to take it since we are sitting here without work, but there is no place to put the finished products."

On a neighboring radio channel two captains are engaged in a caustic argument over who would be the first to receive a transport ship which came near. Both of the fish-factory ships were overstocked with finished products and had been lying at anchor for several days. Forceful conversations of chiefs of expeditions with the shore were heard in the radio cabin. And again, above all else, the discussions were about transportation. What, exactly, is the problem?

Let us go through the entire fish production cycle. Seiners and trawlers deliver their catches to fish-factory ships, where the fish are processed -- preserved, salted and frozen. The finished products are transferred to the transport ships, which run back and forth between the expedition and port. The Ministry of the Fish Industry USSR has developed and reinforced the first two links of this conveyer since they indeed permitted achievement of the greatest effect -- a rapid increase in the volume-of-catch index. The fishing fleet was renovated. In the meantime, the shore and repair services lagged behind more and more. But the transport fleet has proved to be the weakest link as of the present time and it is holding back the entire branch.

Since the start of the five-year plan the All-Union Association Dal'ryba /All-Union Association of the Fishing Industry of the Far Eastern Basin/, which is the leading association in the country, has not been fulfilling plans for the production of commodity output and variety of deliveries. As a result of the poor provision of transportation, seiners, trawlers and fish-factory ships have stood idle without work for around 3,000 vessel-days. Forced to adjust to the irregular rhythm of the transportation conveyer, Far Eastern fishermen are beginning to try to stay up with the plan at any price. During rush days and months they are fishing for the most catchable species of fish, such as the mintay and stavrid. Such species account for over two-thirds of the total catch. We state this fact with bitterness. After all, the Pacific Ocean is capable of yielding in large quantities scores of other species of fish, which are tasty and nutritious.

"The problem of quality also worries us," says L. Buterlevich, chief of the Far Eastern Inspectorate for Fish-Products Quality. "It is possible to catch millions of tons of fish and process them. However, if the finished product is not delivered to the consumer in time, the work of thousands of people will go down the drain. Violations of technology are being allowed in the shops in order to avoid large losses. In the past year we detained in ports, reduced in grade, and made processors finish work on 30,000 tons of salted and frozen fish and almost 30 million containers of canned fish. We had to shift from selective checking of products being delivered to complete checks and the idle time of the transport ships at shore tripled immediately."

The wharves of commercial ports are in the vicinity of the fishing ports. At times the situation permits the acceptance of fish cargoes there also, but then the dock workers have to get involved with the correction of defects made by somebody in far-away seas, including reinforcing the packaging and finishing the salting and freezing of the fish. Such a prospect does not suit them at all.

Of course, it would not have been worthwhile to start this discussion if the problem rested solely on the need to replenish the transport fleet. In the first place, it is, nevertheless, not possible to build the requisite number of ships and bring the crews up to full strength in a short time period. Secondly, it is hardly reasonable to reinforce an enterprise with new capacities without ensuring in advance the efficient utilization of capacities already in operation. We were led to this type of thinking by the fishing transportation leader, Yu. Kirichenko, chief of the Vostokrybkholodflot /Eastern Refrigerated Fishing Fleet/ Administration.

"Since the start of the five-year plan we have received several new ships for our disposal," he said. "We planned an 18 percent increase in the volume of cargo deliveries with their help. However, the growth has proved to be insignificant. We lie at anchor awaiting vacant berths, wait for railway cars and shipment orders, and finish processing the products. The motor ships are being turned into something akin to floating refrigerators lying at anchor. If all went as smoothly as clockwork, we would not need additional forces."

At present it is necessary "to push" millions of tons of fish through the capacity-limited ports of the Far East and beyond -- along the thin thread of Transsib /Trans-Siberian Railroad/. How this calls to mind the proverb about the camel going through the eye of a needle! But is it not simpler for the "camel" to turn in a different direction? Far Eastern fishermen are ready to transport a considerable proportion of their products not to Vladivostok, but directly to Black Sea ports. Just imagine, how many railway cars will be freed and how the situation on the Transsib will be relieved! After all, a modern oceangoing ship has the capacity in its holds for cargo which would require several railway cars to transport.

The Institute of Oceanic Economics of the Far Eastern Scientific Center supported this idea with a mathematical calculation: there will be a 7-12 percent reduction in delivery time periods and a 20-33 percent decrease in transportation expenditures during the shipment of products of the All-Union Association of the Fishing Industry of the Far Eastern Basin, intended for regions of the Center, Urals and Baltic states, directly to ports of the western basins. The need for such transport operations is becoming more and more evident with each passing year. Today there are almost 1,000 tons of cargo per meter of wharf in Vladivostok and even more at Nakhodka, while this index usually does not reach even 500 tons in certain ports of the European part of the country.

The bold proposals of the scientists and specialists are viewed with skepticism at branch headquarters: how many little chains which have been adjusted would have to be broken and new ones linked up! Yes, and it would seem that too big a "shoulder" would result. Big territory? A simple look at the map shows that such cargo movements make sense. Really, why should the All-Union Association of the Fishing Industry of the Far Eastern Basin retain oceangoing cargo liners if the fishing flotillas of ports of registry most distant from each other fish in the very same waters and the basic consumer of Vostokrybkholodflot lives much closer to the Baltic Sea than to Vladivostok? This situation compels us to think about a radical reorganization. Is it not time to remove the transport subdivisions from under the wing of regional industrial main administrations and unite them into a unified whole? An All-Union transport association would be able to manipulate the ships far more efficiently and it would not be necessary to rush steamships, as is the case at times, from the southern part of the Pacific Ocean with half-empty holds thousands of miles to the north to help some trawler or seiner only because they have the same port of registry.

The conclusion is obvious: there is a need for a change in the structure of the transport subdivision of the All-Union Association of the Fishing Industry of the Far Eastern Basin as well as, in addition, also of other industrial associations of the branch. Cargo vessels are needed here, mainly the low-tonnage type designed for ensuring transportation for coastal fisheries. Meanwhile, after having emphasized ocean fishing, the Ministry of the Fish Industry USSR converted the Primorrybflot /Maritime Kray Fishing Fleet/ Transport Administration into a fish-procurement base. As time demonstrated, this decision was made too hastily. In the past year the fishing combines of the Maritime Kray operated at only 61 percent of their capacity.

The absence of a low-tonnage transport fleet led to a situation wherein shore enterprises sat there with shortages during the iwashi fishing season although fish were roaming nearby. The plan for the output of canned saury fish was not fulfilled. Hundreds of tons of salted salmon were not transported on time from the Kuriles Fish Products Plant and, "having wintered over", the salmon's taste qualities were lost. The same thing happened at certain Kamchatka and Sakhalin fish processing plants, where, on the average, there have been 150-200 tons of salmon apiece. The cargo is not very large and it would seem unreasonable to divert fish-procurement ships from the fishing grounds to pick it up. It is also too expensive to send a large refrigerator ship for such a small cargo.

The captains of seiners recall sadly the times when the enterprises had small refrigerated transport vessels, but their construction was stopped over 20 years ago. And the Ministry of the Fish Industry USSR is sending to western ports the maneuverable low-tonnage refrigerator ships, the production of which was developed by Khabarovsk shipbuilders, and they sail from areas rich with fish into relatively overfished seas.

Improvement of the branch transportation conveyer is the link by means of which the entire chain can be strengthened significantly. Reorganization will permit them to make up for the lag caused by the All-Union Association of the Fishing Industry of the Far Eastern Basin. It will create conditions for the effective solution of problems posed for Far Eastern fishermen by the food program.

6264
CSO: 1829/284

FISHING FLEET DEVELOPMENT

CREWMAN CITES MISMANAGEMENT AS CAUSE OF PLAN NONFULFILLMENT

Riga SOVETSKAYA LATVIYA in Russian 26 Apr 84 p 2

/Article (via radio) by V. Nikishin, first mate of the large refrigerated fishing trawler, "Tantal": 'Critical Signal: Blows Against Enthusiasm'/

/Text/ The start of the regularly scheduled voyage of the large refrigerated fishing trawler, "Tantal", of the Liyepaya Okeanrybflot /Oceangoing Fishing Fleet/ Base, was successful. From the first days of work in the assigned fishing area in the Barents Sea the crew of Liyepaya fishermen demonstrated great enthusiasm. The daily target was fulfilled 150-170 percent and only products of excellent quality were produced by the fish processing shop. The collective proved to be one of the best among the crews of the ships in the fishing region.

The decision of the promsovet /fisheries council/ to send the trawler to fish for different species came as a complete surprise for us. The fact is that the "Tantal" had a meager reserve of fuel and fuel oil. In this connection our fish processing shop was completely unprepared for processing the fish which were to be caught in the new place. But there was nothing else to be done but to correct somebody's error in planning by means of round-the-clock work of the ship's specialists and intense efforts of the whole crew. Nevertheless, the crew succeeded in reorganizing the work and by the third day proceeded to fulfillment of the norm of produced output. We soon began to exceed the daily targets. But then a new blow fell -- for the third time the ship was shifted to trying to catch still another species of fish. Here, too, the crew was trying to get into the swing of things faster while working under strict fuel-saving conditions. However, due to the shortage of boiler fuel, for over 10 days we were unable to produce either fish meal or fish oil. The output of frozen fish products also dropped and the morale of the crew fell.

Fishermen of other fishing vessels also find themselves in a similar difficult situation quite often. But, you know, many crews have pledged to try to achieve a one percent above-plan growth of labor productivity and to cut the cost of output an additional half percent this year. How can these obligations be met and socialist competition be organized among the ships' crews if they are forced, against their will, to lower the work tempos and produce fewer products than they could have turned out?

It is too bad when a crew which values each ton of fish caught is deprived of initiative, when a ship is tossed, without justification, from place to place, and when fuel tankers and refrigerator-transports for transshipping fish products are not sent to the assigned fishing areas on a timely basis.

The workers of our shore-based services and planning organizations of Zapryba /Main Administration of the Fishing Industry of the Western Basin/ obviously need to eliminate these shortcomings more decisively. As was emphasized at the April (1984) Plenum of the CPSU Central Committee, we have moved into an extremely important phase of the five-year plan, when we are already counting the months. "Troubles -- even, if you will, alarm over the state plan -- must not stop us for a single minute," said Comrade K. U. Chernenko at the plenum. These words apply fully also to us, workers of the fishing branch of industry.

6264
CSO: 1829/284

ROUNDTABLE ON NEW TALLINN PORT DEVELOPMENT

Tallinn SOVETSKAYA ESTONIYA in Russian 24 Apr 84 p 2

/Article on a recent roundtable discussion of participants of the Editorial Office Public Council, established on the proposal of SOVETSKAYA ESTONIYA (Soviet Estonia) at the construction site of the New Tallinn Port: 'New Tallinn Port: Construction Project Gains Momentum'. The discussion was led by G. Ol'shak and Ya. Tolstikov and was followed by editorial comments/

/Text/ As is known, construction of the largest hydro-engineering installation of the Soviet Baltic -- the New Tallinn Port -- was begun in March of 1982 in the vicinity of Muuga Bay near Tallinn. The new port will be able to receive ships with displacement up to 100,000 tons (it is not over 10,000 tons at the port now in existence). After completion of all work (in the years 2010-2015), the New Tallinn Port will occupy third place in the country for freight turnover after Il'ichevsk on the Black Sea and Vostochnyy Port on the Pacific Ocean.

The construction project is now picking up speed and in 1986 a port start-up complex for processing 5.5 million tons of grain and also citrus and perishable products is slated to go into operation.

By this time wharves, an elevator, storage facilities with refrigeration chambers, railroad sidings, a complex for placement of the computer center, radio navigation facilities, and auxiliary services will have been built and transshipping and technological equipment installed. The year 1988 is the deadline for completion of the first stage of the port, which will include also a complex for processing mineral building materials. Freight turnover will reach 5.62 million tons per year, which is double the capacity of the present operational port.

The Ministry of the Maritime Fleet and Ministry of Railways USSR are clients in the construction of the New Tallinn Port. The basic documents for construction of the new port near Tallinn are being elaborated by specialists of LenmorNIIproyekt /Leningrad Maritime-Facilities Planning and Scientific Research Institute/ with the assistance of the Estonian Planning Institute, Estonian Industrial Planning Institute, and Estonian State Planning Institute for Rural Housing and Civil Engineering Construction. The general contractors are the Ministry of Transport Construction USSR, which is represented here

directly by the Baltic Maritime Hydro-Engineering Construction Trust (Construction Administration No 423) and Northwestern Transport Construction Trust (Construction and Installation Train No 675), and the Ministry of Construction USSR, represented directly by the Ministry of Construction ESSR (Industrial Construction and Construction Mechanization trusts and Tallinn House Construction Combine). In addition to these organizations, foreign firms are participating in construction of the most important projects of the New Tallinn Port. In accordance with a contract signed in December of 1983 on "with key" conditions, the Finnish firms YIT and EKE-Engineers have assumed the obligation to build and turn over in 1986 to the client, the Ministry of the Maritime Fleet USSR, both complexes -- for transshipment of grain and refrigerated products. The West German Buhler-Miag Firm will deliver and install equipment for the grain complex. Thus, this construction project is a vivid example of mutually beneficial international cooperation.

Taking into account the importance of the tasks now faced by the collectives participating in the construction of the New Tallinn Port, an editorial office public council was established at the construction site on the proposal of the newspaper SOVETSKAYA ESTONIYA. Its participants assembled recently for a roundtable discussion. The participants in the discussion included A. Ponomarenko, director of the New Tallinn Port, now under construction; deputy director V. Murnikov; R. Mikhaylov, chief of the industrial construction department, Gosstroy ESSR; K. Voronin, dep chief of the Estonian Maritime Steamship Line; E. Dobolin, manager of the Industrial Construction Trust; S. Teras, instructor of the Tallinn City Party Committee, CP of Estonia; A. Ivanov, chief of Construction Administration No 423 of the Baltic Maritime Hydro-Engineering Construction Trust; I. Livenson, chief of Construction-Installation Train No 675; I. Truusalu, chief engineer of Specialized Operations Administration No 1 of the Construction Mechanization Trust; V. Shul'man, chief of Construction-Installation Administration No 1 of the Industrial Construction Trust; L. Savkina, deputy chief of the production department of the Tallinn House-Construction Combine; A. Gordiyenko, chief of staff of the All-Union Komsomol New Tallinn Port Shock-Construction Project; and A. Onolov, secretary of the Komsomol Organization of Construction Administration No 423.

Let us turn the discussion over to the roundtable participants.

A. Ponomarenko: It is possible to say that the preparatory phase of the work on construction of the New Tallinn Port has been completed. Now it is necessary to build the basic installations -- the grain complex, the perishable goods complex, and other construction projects.

I will emphasize the fact that the level of mechanization in the new port will be exceptionally high and without equal in our own country and also in many European ports.

For example, machinery with a productivity of 1,000 tons per hour will be used for unloading ships. A railway car will be loaded with grain in two minutes.

At the present time we pay off at foreign exchange rates while transshipping grain in foreign ports. The possibility of receiving enormous bulk-cargo ships at the New Tallinn Port will enable us to save considerable sums.

During a period of two years over 20 million rubles in capital investments have been assimilated. A territory with around 100 hectares has been prepared for the placement of shore installations, over 3 million cubic meters of earth have been removed by suction dredges and motor transport vehicles, 14 kilometers of railroad tracks have been built, and many other labor-intensive operations have been fulfilled.

The figures, it would seem, are impressive. However, at present we have completed only 12 percent of the volume of work which must be fulfilled for putting the first stage into operation. It is necessary to use another 150-160 million rubles. The total cost of the first stage of the New Tallinn Port will be around 350 million rubles. It is possible to say that never before has there been a construction project of such a scale and such enormous importance in our republic. Unfortunately, we still encounter the reluctance of certain organizations to make prompt decisions.

/Question/ How is this manifested?

A. Ponomarenko: I will give you this example. Coarse-grained sand is needed for the construction project and it can be obtained with the aid of suction dredges in the region of the Prangli or Nayssaar islands. However, we have not received permission from the Ministry of the Fish Industry, or more precisely, from Vostbaltrybvod /Organization for the Protection and Reproduction of Fish Reserves and Regulation of Fishing in the Eastern Baltic Region/, an organization which is engaged in the protection and reproduction of fish reserves.

/Question/ But perhaps construction of the port will have a negative effect on them?

A. Ponomarenko: We understand: the fishing reserves must be protected. In the event of possible damage we included three million rubles in the plan as compensation to the Ministry of the Fish Industry. However, here is the conclusion of the specialists: as a result of dredging operations the chemical composition of the water in Muuga Bay has improved and fish have now appeared there.

But let us return to our other problems. The construction project has been declared an All-Union Komsomol shock-construction project -- hence, of paramount importance. I feel that a city staff would be a big help to us in the construction of the New Tallinn Port. The experience from building Olympic facilities and other important projects shows that the activity of a staff can be very fruitful. The situation with the construction of housing is alarming -- the rates here are clearly insufficient. And it can happen that the port will be turned over for use but housing will not be ready. Time is pressing, impending work volumes are growing, but the capacities of the organizations participating in construction of the port are insufficient.

By the end of 1986 the Ministry of Construction ESSR is supposed to perform work on industrial construction valued at 18.5 million rubles, but in the meantime, during preliminary coordination of the title list the volumes of work accepted amounted to a total of 6.5 million rubles.

E. Dobolin: In accordance with the general contract we are building housing in Kallavera, sociocultural and consumer services facilities, and, in particular, are scheduled to turn over a dining hall for use next year. We have to build 6 apartment buildings with 330 apartments, a pumping station, run cable routes, and carry out other work. But the capacities of our organizations simply do not suffice.

R. Mikhaylov: And you still also have reserve capacities, which you very well know.

E. Dobolin: But here you have to take into consideration the fact that if the volume of work on the New Tallinn Port will be two million rubles this year, then next year it will be over five million. But, after all, we are also working in Khar'yuskiy Rayon and are building a shop at the Loksa Ship Repair Plant...

A. Ponomarenko: The work volumes are being coordinated through the Ministry of Construction ESSR. Apparently, the full importance of the construction project has still not been realized completely in all of the republic organizations.

L. Savkina: In the course of 3.5-4 years the Tallinn House Construction Combine is slated to build at Maardu 85,000 square meters of housing for needs of the new port, which means approximately 20,000 square meters per year, including 3 dormitories, each with capacity for 490 people. The first of these is due this summer, by 1 July, 1984.

R. Mikhaylov: You ought to be more precise. By a decision of directive organs, the dormitory must be turned over for use in May and not in June.

A. Ponomarenko: The combine could have started construction of this dormitory back in August or September of 1983 and 500,000 rubles were allocated for this purpose. However, the house construction combine delayed the start of this work. Simple logic: in this case the construction project would have been carried over to early 1984, but if it were not turned over for use, then concern would dwindle; after all, the combine has to account for projects delivered. Thus, narrow departmental interests were placed above the interests of the state.

L. Savkina: That is not entirely right. There was no electric power at the construction site, where the foundation of the first dormitory was being laid, even in November of 1983. Electricity for construction machinery was supplied only in March.

A. Ponomarenko: Here there has actually been a bit of a lag in the construction of engineering systems and communications and this complaint is addressed to the representative of the general contractor, the Industrial Construction Trust of the Ministry of Construction ESSR. At the same time, it is necessary to remember that the client, the Ministry of the Maritime Fleet, allocated four million rubles for development of capacities of the Tallinn House Construction Combine so that the combine would be able to fulfill the tasks assigned -- to build 85,000 square meters of housing in Maardu for needs of the new port.

R. Mikhaylov: The Industrial Construction Trust has to date not really been able to coordinate its efforts on the construction project. Therefore, the turnover for utilization of the second dormitory this year is unrealistic, although, in my view the potential capabilities of the trust are far from being utilized fully. But, you know, a former mobile mechanized column was converted into the trust, proceeding, first of all, precisely from the interests of the new construction project.

I. Livenson: On the order of the Ministry of Railways we are building external railroad tracks -- from Yuleniste Station to Maardu Station and from the Lagedi Station to the new Muuga Station -- a total of 41 kilometers. In addition, on the order of the Ministry of the Maritime Fleet we are building approximately 20 kilometers of intraport railway lines and corresponding station and other facilities for their maintenance. The work volume is distributed by years approximately as follows: 1984 -- 3 million rubles; 1985 -- 6 million; and 1986, the year for delivery of the start-up complex -- 8 million rubles. Their assimilation will be no easy task if we take into account the fact that, in addition to the port, we have a number of obligations also for other projects and they occupy over 50 percent of the overall volume of operations. And, withal, we could do more, especially if all the requisite problems of the preparation, planning and organization of work were solved in the republic on a more timely and businesslike basis.

Here is an example. As one of the general contractors, the Ministry of Transport Construction allotted the Ministry of Motor Transport ESSR a limit for the annual transporting of 50,000 tons of goods by motor vehicles, but the republic ministry is agreeing to accept a ceiling of only 5,000 tons. They say that Tallinavtotrans /Tallinn Motor Transport Administration/ does not have the capabilities for handling more. But, you know, such an explanation does not make things easier for us, the contractors, including also my colleague, Ivanov. "Haul out local building materials independently!" But, after all, it is clear that our possibilities for independent hauling are limited.

And this is the result: the union levels of authority grant limit-allocations but we do not have the capability of really using them. But, after all, 1986, the year when the first oceangoing ship is supposed to sail into the New Tallinn Port, unload at its wharves, and then depart, is not very far away.

R. Mikhaylov: If the Ministry of Motor Transport was allotted a limit of 50,000 tons of goods, it is under obligation to provide for their delivery. There is some sort of misunderstanding here and the same thing is true also of other debatable questions. Everything required for construction of the new port should be provided for in exact conformity with the ceilings allocated and difficulties of any kind cannot serve as a justification for the republic levels of authority.

I. Livenson: Here is another example -- the city and the construction site. Several dozens of workers, at times up to 100 people, are already working on port construction projects. They should have access to a grocery store and cafe which serves hot dishes nearby.

/Question/ But have these questions been brought up before the municipal authorities?

I. Livenson: They have been raised repeatedly but are being solved slowly. The situation with bus transportation is similar. There should now be a regularly scheduled bus which runs from the city to Muuga, to the vicinity of the construction site, but the Tallinn Bus Depot is now even threatening to take the only one running here now off the line -- "there is no allocation for gasoline, so give us your own fuel".

S. Teras: That is real extortion. It is prohibited to turn over fuel to another organization. We are trying to investigate this problem. With respect to hot food, the workers have the possibility of eating at Kallavera and a special time has been set for this at the municipal dining hall when only the builders are served. Development of construction of new trade centers in the region...

Not everything here is dependent upon the city authorities and trade organizations. However, the railroad branch does have its own workers' supply department. In my opinion, its leaders could also help in solving the problem. That is to say, even the Ministry of Transport Construction itself, through its Construction Installation Train No 675 and Construction Administration No 423 of the Baltic Maritime Hydro-Engineering Construction Trust, could show more initiative and persistence.

A. Gordiyenko: At the present time the attraction of young workers and specialists to the construction site on Komsomol passes is an urgent task for the staff of the All-Union Komsomol shock-construction project. The All-Union Komsomol Central Committee has been authorized the recruitment of 300 persons, including 100 young soldiers who have already served their time in the Soviet Army. However, the Tallinn City Soviet Executive Committee limited the residence permits to 75 persons. This is clearly insufficient. Within one month, literally, the first group of ex-soldiers will arrive in Tallinn at the construction site, but where will they find lodging? The Ministry of Construction ESSR proposes places but in different dormitories. This is not right; they should all be lodged together. And this question -- the staff must transfer the 300 persons with Komsomol permits to the Ministry of Construction, but it is not the only contractor. Organizations of the Ministry of Transport Construction are fulfilling a far larger volume of work.

R. Mikhaylov: That is correct, but you should not forget that the Ministry of Construction ESSR, its house-construction combine, and the industrial construction trust are carrying out the construction of housing and socio-cultural and consumer services facilities. Here the work is proceeding more slowly than is desirable. And so, the additional workers should be sent, first of all, right here, and the task of the ministry lies in utilizing the young reinforcements most effectively.

A. Ivanov: All the same, we are building a port and not housing.

R. Mikhaylov: Where the Komsomol workers will be sent will be decided, in the final analysis, not by the Komsomol construction project staff but by republic directive organs.

A. Ivanov: Our organization is in a situation somewhat different from that of the other builders. The total annual volume of work which we are fulfilling amounts to almost 15 million rubles, 11 million of which will be for the New Tallinn Port. We are building wharves for refrigerated and mineral construction goods and for the port fleet, protective structures, pumping facilities and garages. This year we are planning to turn over a first-aid station for use and are building a general services facility with 650 seats and a dining hall. In a word, it would seem that we are coping with our assigned tasks, and even quite well.

However, the volume of work on the first stage which lies ahead of us is enormous and, moreover, the main projects must be turned over for use in 1986. The client figures with good reason that we will almost double our capacities.

/Question/ To 30 million rubles a year?

A. Ivanov: We will hardly be able to do that. The capacities must meet the requirements. But it looks as though our ministry cannot venture to look into the future. Here is what is happening: today we are coping, fulfilling the plan, and everything is okay. Understand me correctly -- here it is not a question of prestige, but there is an urgent need to convert our construction administration into a trust. It is necessary to increase our capacities and recruit people. We are waiting for assistance from the Ministry of Transport Construction.

However, there are also many problems which can and should be solved locally. For example, both the subcontractors and we have an electric power shortage. But the Main Administration of Power and Electrification ESSR keeps trying to find reasons not to accept the high-voltage line which we built.

K. Voronin: Everything that has been said here is justified. There are many difficulties and one cannot hope that they will decrease since the work volumes will grow rapidly. There is an attitude of understanding of our needs in the republic but it is necessary to duly consider that the capabilities of the republic are by no means limitless. If, for example, it was

planned in the beginning for the Ministry of the Construction Materials Industry to transport and deliver 8,000 tons of cement for the New Tallinn Port this year, but in January another figure was given -- 20,000 tons -- then we have to take this into account and it is really difficult. And, nevertheless, I am certain that any and all difficulties will be overcome and that the New Tallinn Port will be turned over for utilization on schedule.

/Editorial Commentary/ The "roundtable" meeting again demonstrated the important tasks faced today by the builders, installation workers, subcontractual organizations, and by all who are participating in the construction of the New Tallinn Port. The goal is to put into operation the start-up complex -- the largest hydro-engineering installation on the Baltic -- in a short period of time, less than three years! The success of this work depends, above all, on the capacity for harmony and organization of all the participants. Not to try to find reasons which justify a lag but to find methods of solving the problems which arise -- this is precisely how the problem should be posed.

The editors of SOVETSKAYA ESTONIYA thank all the meeting participants for their interested and active participation in the discussion and are confident that the members of the editorial office public council at the construction site (and the "roundtable" discussion participants make up its basis) will also help us in the future -- first of all, with their own articles in the newspaper -- in the elucidation of important problems of the construction of projects of the new port.

The SOVETSKAYA ESTONIYA Editorial Office is assuming patronage over the construction project and plans to illuminate regularly the course of the work at Muuga and Maardu right up to the successful completion of the start-up complex and turnover of the first stage of the New Tallinn Port for utilization.

6264
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INTERSECTOR MEETING EXAMINES PORT WORK COORDINATION

Moscow VODNYY TRANSPORT in Russian 10 Apr 84 p 2

[Article by A. Kozlov: "Strengthen Cooperation of Suppliers"]

[Text] As was reported in our newspaper, a joint meeting of the party committees of the Ministries of the Maritime Fleet (MMF), Railways (MPS), Motor Transport of the RSFSR (MMT) and the River Fleet of the RSFSR (MRF) took place recently. Discussed at the meeting was the agenda item "On the work of party organizations of the MMF, MPS, MMT of the RSFSR and MRF of the RSFSR in carrying out the CPSU Central Committee resolution 'On labor cooperation of collectives of seamen, rail workers, motor transport workers and river transport workers at the Leningrad Transportation Center' and the tasks of communists in ensuring further improvement of intersector transportation coordination".

The purposeful work of communists and collectives of the ministries in realizing this CPSU Central Committee resolution makes it possible today to speed up freight delivery and decrease transportation expenditures in the national economy. The system of managing the transshipment process has improved at transportation centers.

Dozens of transportation centers are now operating under this system on the basis of sea and river ports and railroad stations. Dissemination of the experience of the Leningrad workers has provided the opportunity to increase the level of freight processing and the use of transportation resources, and to improve the quality of operational control of shipments.

The ties between longshoremen and consignors (consignees) of freight have expanded on the basis of direct contracts and coordination has improved on the transfer of import freight shipments from sea ports from rail and river to motor transport.

The economic impact from the introduction of the system of continuous plan-shedule of transportation center operation (NPGRTU) was nearly 80 million rubles for 1978-1983. Over 800,000 cars have been freed at transportation centers by increasing static load and speeding up the processing of cars in proportion to the norms.

Competition is developing successfully, cooperation and mutual assistance of labor collectives have improved and their interest in timely processing of transportation resources and in improving the quality of labor have increased.

At the same time, in the work of the centers there are still many untapped reserves for increasing the efficiency and quality of work, omissions and uncoordinated actions.

NOT A PLANNING CATEGORY, BUT A MORAL ONE

In his speech at the joint meeting of the party committees of the four ministries, Deputy Minister of the Maritime Fleet B. Trunov stressed that all of the main ports of the MMF are working under a system of continuous plan-schedule of freight operation based on scientifically sound norms. They process about 90 percent of the total volume of freight. Also, the NPGRTU is done in an automated mode at 22 ports.

The experience of the Leningrad workers is developing in scope and depth. This indicates that the system of intercoordinated continuous planning itself and the coordination of the work of suppliers at transportation centers is improving. Direct contracts are starting to be used more often, the end goal of which is the delivery of freight from door to door.

Thus, the Leningrad Port has such agreements with the Volga Motor Vehicle Plant and the Kama Motor Vehicle Plant. The Odessa Port and the Cherkassy Azot Association organized the shipment of freight by motor transport and and river fleet and its transfer from river to sea-going vessels alongside. The ports of Il'ichevsk, Tallinn, Izmail, Novorossiysk, Nikolayev, Zhdanov and others are also operating under direct contracts.

The MMF attaches great importance to the coordination of transport work within the framework of transportation and economic regions based on steamship lines, highway administrations and other organizations. The goal of the work is to lower shipment costs, speed up freight movement and divide the flow of freight efficiently. Here the coordination councils of the centers that have been set up play an important role. Experience shows that where their work is purposefule and effective, transportation functions without troubles or disruptions.

Coordination of the shipping process on an interdepartmental level with the participation of consignors and consignees of the freight is having a great impact. So, in 1982 the MMF and MPS implemented a single regulation for

the progress-of-work report on processing cars, using the Main Computation Center of the MMF for this. Considering that the capacities of many near-port stations fall short of port capacities and restrict increasing the volume of freight processing, the USSR Ministries of the Maritime Fleet, Railways, Transport Construction and Procurement developed measures for increasing transshipment of freight at ports of the Azov-Black Sea and Baltic Sea basins and at stations and port elevators.

B. Trunov stated that coordination of the work of suppliers within the framework of transportation centers based on the NPGRTU has made it possible to increase freight shipments by the direct variant 1.6-fold from 1977 through 1983. Last year alone clients received 500,000 more loaded cars from ports than in 1977. Over 220,000 cars were freed by reducing the layover of rolling stock.

The thousand-unit and two-thousand-unit worker movement originated and is expanding in maritime transport. Its essence is that dockers pledge to load 1,000 and 2,000 kilograms over the established static load plan in each car through efficient use of its capacity.

The qualitative level of transport work increased considerably after the CPSU Central Committee resolution mentioned came out, but the rate of this growth must be further increased and accelerated. What is hindering this process?

There are still a good many unresolved questions and problems. Just take the flow of cars to freight fronts in accordance with orders and plans. In 1983, for example, the MPS failed to provide over 161,000 cars to sea ports (nearly 12 percent of the plan) and paid 3.3 million rubles in penalties. However, the losses were not incurred by the MPS alone, for the transportation systems of a number of regions was disrupted.

Due to the overload, the rhythm of container terminals at Il'ichevsk, Leningrad and the East is being disrupted and the specialized fleet is standing idle for an extended period of time. The intensity of its processing remains even now in Leningrad and other ports. They have 1.5-2 million tons of freight, but the orders for cars are only being satisfied by 50-60 percent.

But here there is a paradox. Everyday a large number of empty cars are sent out from ports on MPS regulated assignments. If we try to grasp the sense of such actions, then we will see that this question of a planning category crosses over into the moral category and even more.

Sending out empty cars when there is always freight and when plans for supplying cars are not met makes the task of explaining this question to operations management personnel and dockers exceptionally complicated. This leads to a decrease in labor productivity, an increase in idle time of crews and a decrease in people's earnings.

The issue of developing near-port stations is also becoming increasingly important. Measures outlined by the MPS several years ago are being implemented ever so slowly. For example, in 1983 out of the 3 million rubles

allocated for developing the Novyy Port Station at Leningrad, only 16,000 were acquired and the development of the first section of the Novorossiysk Station, planned for 1982-1985, is being moved back two years.

IMBALANCE OF PLANS

In Deputy Minister of Railways V. Butko's opinion, this is the main reason for the untimely delivery and mismanagement of cars. He stressed that it is the shipment plan that is the main indicator in work for station workers, whereas for longshoremen it is only an incorporated indicator. A constant balance of shipping plans with the availability of freight is needed. But since there is none, then it turns out that the collectives of the MMF fulfill their plans and commitments and the rail workers do not. In other words, competing suppliers are placed in unequal conditions. Hence, interrelations are complicated and the proper distribution of cars is made more difficult.

So, V. Butko said, only by having shipping plans will the rail workers be able to provide the ports with transport in a timely manner. There are real possibilities for formulating reasonable plans of import freight delivery with the designation of routes and receiving stations.

Indeed, the MMF and MPS must find the best solutions for balancing the plans so that the collectives of ports and stations receive the necessary effect and work according to a schedule. Specific measures in this direction are being taken. Collectives of the Odessa and Baltic lines have achieved noticeable success. Transportation centers of Novorossiysk, Murmansk, Tallinn, Klaipeda and others are laboring persistently.

A key resource of the joint transportation process is a more active involvement of the river fleet in the shipment of grain, metal, ore and unrefined sugar from Black Sea ports to regions of the Ukraine, the Center, along the Volga, the Urals and Siberia. This freight is being delivered by rail and at the same time by water route. Obviously, it would be economically expedient to transfer a larger share to the river transport workers, freeing the cars for other purposes.

V. Butko expressed much alarm regarding the unloading of cars at Osetrovo and Vanino. This issue must become a subject of special concern of the coordination council of the ministries and of all transport worker-supplier collectives.

TAKE SHIPMENTS UPON ONESELF

At the joint meeting of the party committees Deputy Minister of Motor Transport V. Medvedev said that in 1983 the RSFSR Ministry of Motor Transport outlined additional measures for disseminating the experience of the collectives of the Leningrad and Odessa transportation centers. Emphasis was placed on developing labor cooperation of suppliers.

Now the Russian motor transport workers ship out or bring in freight in a centralized manner at 439 stations, 16 sea and 47 river ports and piers and 14 airports. About 260 enterprises are participating in socialist competition with collectives of other types of transport.

This has contributed to the increase in the volume of freight shipments at transportation centers. Compared with 1979, the volume of freight delivered by the direct variant of ship (car) to motor vehicle more than doubled. The brigade contract method is expanding. Last year nearly a third of the total freight volume was shipped by contract brigades, which is 2.5-fold more than in 1979.

The transfer of transport-dispatch functions to common-carrier enterprises has had a great influence on improving shipments and more fully supplying customers. As a result, their responsibility to clients, stations and ports for the quality of elements of the transportation process has increased sharply and the planning and execution discipline in issues of freight shipments has been enhanced. Increasing centralized shipments helped free about 4,500 motor vehicles of various departments.

Collectives of the RSFSR Ministry of Motor Transport have gained favorable experience of cooperation with river transport workers of Leningrad, Ul'yanovsk, Volgograd and collectives of the Lipetsk, Belgorod, Tyumen, Kutum, Kaluga-1 and Armavir stations and others. The layover time of the fleet and rolling stock has decreased considerably.

Speaking of the progressive tendencies in the work of the ministry's collectives, V. Medvedev also dwelled on the problems troubling the Ministry of Motor Transport, specifically on the complexities of the Magadan Transportation Center.

The flow of freight there is continually growing and correspondingly the Magadan Territorial Association of Motor Transport is developing. But the increase in the volume of freight shipped from the port is very slight. What is hampering this?

Basically, it is organizational discrepancies. A unified shipment production process has not been introduced here, the production base of the motor vehicle enterprise is not developed, and so forth.

Also, the suppliers cannot come to an understanding on fulfilling coordinated planned daily production quotas. They are continually being violated. There were 1380 instances recorded in 1983 which resulted in late delivery of nearly 60,000 tons of freight.

In expressing the ministry's point of view toward the work of the centers, V. Medvedev said that many administrators of the Ministry of Motor Transport enterprises underestimate the importance of contracts on labor cooperation. They often make them formally and do not provide for such key indicators in them such as reducing the layover of ships, cars and motor vehicles, decreasing the amount of unshipped freight, reducing container turnover time and increasing the level of centralization in their shipping in and out by motor transport.

Much is said about the advantage and benefits of using electronic computers for planning and monitoring shipments at transportation centers. But when it comes

to introducing them into practice, a great many "buts" arise. But without electronic computers it is much more difficult to organize and coordinate the work of a large amount of different types of transportation resources.

An important potential for increasing efficiency of shipments is the switching of short-haul deliveries from rail to motor transport. It can take on part of such shipments, for example, at the Kaliningrad Sea Port and other places.

THE ALGEBRA OF DOUBLED COMBINATIONS

Deputy Minister of the RSFSR River Fleet N. Gor'kov noted in his speech that the geography of the Leningrad experience is continually expanding, and this is good. The experience of this center is being creatively developed to fit the specific nature of one or another area of the country. A good confirmation of this is the center's work on the basis of Moscow's Severnyy Port on bringing in fruits and vegetable to the capital. For a number of years the center's suppliers have been operating harmoniously and efficiently.

River transport workers are interacting more and more efficiently with ports of the Baltic, Azov-Black Sea, Caspian and other basins.

But just like other ministries and suppliers, the river transport workers have their own sore subjects. One of them is the Osetrovo Center. There are many problems here: a shortage of warehouse facilities, limited berth capacities, etc. With such difficulties, close interaction of all suppliers is necessary. However, understanding this, the river and rail transport workers simply cannot achieve a qualitative planning of work at the center and monitoring of the implementation of adopted decisions here is weak.

For example, they have all the capabilities here for the specialized container berths to be used at full capacity; however, they are operating at 50-60 percent of their potential.

Now, contrary to directives, a great deal of the freight to areas of Siberia and the Far East continues to be sent without containers. Because of this, the eastern ports have become packaging shops, spending vast resources on this. Last year the river transport workers packaged 1.7 million tons of freight.

In order that the flow of freight to these regions is not slowed down, it is necessary that stations and railway departments pursue a tough and principled policy on receiving freight, meaning a most rapid shift to complete packing and containerization of freight.

Experience more and more sharply requires such a solution of the question of the mutual material responsibility of transportation enterprises as well for the timely movement of freight from ports. The Lvov and North Caucasus Railroads have good experience in rewarding station supervisory workers for fulfillment of a freight shipment by manpower of the railroads. It would be good for this experience to spread to other subdivisions of the MPS working with river and maritime transport workers as well.

Seemingly, wider use should be made of the practice of double combinations at transshipment ports, that is, where it is possible and advisable return loading of cars must be accomplished after unloading. For example, such a possibility exists at the port of Perm, where salt is shipped to Kemerovo and coal from there is shipped back.

COMMUNISTS IN THE VANGUARD

In his speech, A. Lykho, party bureau secretary of the Main Administration of the Dry Cargo Fleet (Glavflot) of the MMF, dwelled on the role of his party organization in improving coordination of the work of related modes of transportation. In response to a joint appeal by the party organization secretaries of the Riga Sea Port and the Baltic Line, the party bureau of the Glavflot and of the Main Administration of Cargo Traffic of the MPS outlined a set of measures aimed at further improving the transportation process. They are holding joint party bureau meetings and party meetings and are considering issues of speeding up scientific and technical progress in transportation, plan fulfillment, increasing the level of containerization and packaging, ensuring the preservation of freight, observing procedures for stacking and reloading of freight, etc.

WE ARE GETTING CARRIED AWAY WITH ODESSA

V. Tikhonov, chief of the Administration of Transport-Dispatch Service of the RSFSR Ministry of Motor Transport, stated that in the joint commitments made main attention is on the mutual improvement of transportation resource usage. It has been possible to achieve an improvement in the basic quantitative and qualitative indicators of work; there have been increases in the volume of shipments, freight handling and labor productivity.

In V. Tikhonov's opinion, the chief task in resolving general problems is the development of centralized freight delivery. This method is highly effective. For example, using this method the freight is at the stations and ports for 2-3 days and under the non-centralized method it is there for a minimum of 7-8 days. However, it is forcing its way into being very slowly. One of the serious obstacles in the way is the clients. They often reject centralized shipping, citing the availability of their own transport.

In order to overcome "collection by purchaser", is necessary to popularize the centralized method and the work of the transportation centers themselves.

We get very much carried away with the work of the major transportation centers of Leningrad and Odessa and completely forget about the medium and small ones which comprise a ponderable share of the overall volume of freight processing, but give way to the giants in a technical and organizational aspect, noted V. Tikhonov. Therefore, they have more difficulties and must be monitored more closely.

IT IS NOT ENOUGH TO ADVANCE A SLOGAN

Practice has shown, believes G. Tarin, chief of the Main Port Administration of the RSFSR Ministry of the River Fleet, that where party organizations have stood at the head of the new form of transportation enterprise cooperation the situation at the centers improved considerably.

In the MRF, measures for introducing the experience of the Leningrad workers have been taken under special control by the party committee and party bureau Much has been done. However, assessing the situation at many transportation junctions from party positions, it is impossible to consider the work in its final outcome to be positive.

So, the volume of mixed rail-water shipments for 1978-1982 tended to decrease. It is slowly increasing now, as is the delivery of freight by motor transport. There are many shortcomings in the processing of cars, ships and motor vehicles. As before, information on the arrival of cars remains a "weak" point and the planning and execution discipline is weak.

Some administrators of central boards of the MRF, steamship lines and ports display formalism and substitute much organizational work with the hope that it is enough to advance a slogan that the center has started working according to the experience of the Leningrad workers and the matter is finished.

Experience seriously punishes for these errors, as happened at the Ust'-Donetsk, Kotlas, Perm and other centers. It is necessary to be inspired with the Leningrad spirit, a spirit of mutual understanding, mutual support and assistance. Frequently, the troubles of the river transport and rail workers have their start in Moscow--in the offices of the main administrations of the MRF and MPS.

For example, in recent years an increasing amount of freight has been coming to Osetrovo in heat-shrunk film and sling-packs. One would think that the manual work would be decreased and the processing of cars speeded up. Nothing of the sort. Gross violation of the method of loading them and the lack of packet unfasteners in them leads to even more labor input and time losses in unloading. But the administrators of both container administrations of the MRF and MPS do not take the time to resolve this problem once and for all.

Pointing out the positive role of the interdepartmental coordination commission, G. Tarin noted that it has recently reduced its functions to merely hearing the administrators of transportation centers and is losing much in carrying out its basic role--coordination of the work of related transportation modes. Questions of coordination on the level of ministries and central boards remain beyond the framework of this organ's activities.

UNSETTLED CONTROVERSIES

Secretary of the Party Bureau of the MPS V. Suchkov stressed at the joint meeting that the usefulness of such contacts in further improvement of the transportation process is unquestionable. In working out the task of spreading and

developing the Leningrad experience, the party committee of the MPS is directing the collectives towards improvement of the administration and over-all development of the industry in light of the CPSU Central Committee resolution "On the work of the party committee of the Ministry of Railways for developing initiative and increasing responsibility of communists of the organization for carrying out the decisions of the 26th Party Congress, the November (1982) and June (1983) CPSU Central Committee Plenums". We are pursuing closer contacts with suppliers. Due to a lack of harmony in working with other ministries, the MPS often incurs tangible financial losses. We have been convinced that if there is no harmony with suppliers, then the meetings with them are reduced to talk and unsettled arguments. Then this is meaningless work. Any problem must be resolved jointly.

The experience of the Leningrad workers gains more new ground each year in the country's transportation system. Many shortcomings in the work of participants in the shipping process are being overcome. There are improvements here. It is gratifying that the psychological barrier in the way of closer cooperation of seamen, river transport workers, rail workers and motor transport workers slowly, but nevertheless, is being broken. Their quest for fruitful and constructive contact is expressed in the new forms of planning and organization of the transportation centers' work. This process is irreversible and is qualitatively improving.

URGENT TASKS

--Consider the improvement of over-all competition of the transportation center collectives and supplier-enterprises on the basis of a continuous plan-schedule and its norms to be one of the key tasks of party organizations. Party organizations must strengthen mass-educational work in organizations of the ministries and more widely propagandize the progressive work experience of centers.

--Regularly meetings of the central coordination commission of the transport ministries the administrators of central boards and enterprises responsible for organizing the work of suppliers in the ministries.

--Introduce changes to the active normative documents of the ministries and departments, specifying the mutual responsibility of enterprises making up the transportation centers.

--Conclude direct contracts with freight consignors and consignees on a broader scale.

--Increase route and centralized shipments.

--Upgrade the equipment of the mid-capacity container fleet of the MPS. Re-establish the container points which operated earlier and were eliminated by the MPS. This will increase the efficiency of motor transport being unloaded at consignees.

--Closely monitor the difficult transport centers at Magadan, Vanino, Osetrovo, Perm and others.

DEVELOPMENT, OPERATIONS OF VOSTOCHNYY PORT

Moscow MORSKOY FLOT in Russian No 4, Apr 84 pp 16-17

[Article by V. Boldychev, deputy chief of Vostochnyy Port, and L. Bochkov, secretary of the port's party committee: "The Largest in the Far East"]

[Text] Today the buoy lights near Cape Krasnyy point the way to Vostochnyy--the largest port in the Far East. Construction of the port was begun in 1970, and it was dictated by the necessity for further planning of the development of the Far East's productive forces. Project surveys were conducted in Vrangel Bay and a Komsomol youth detachment of the "Dal'morgidrostroy" trust got down to work. Construction was begun on the first berth, residental dwellings, motor vehicle roads and railroads. And on 27 December 1973, having gotten up to the berth of the timber processing complex with a load of logs, the first whistle blast of a motor ship resounded on a shore that was deserted in former times.

The port's young collective energetically set about assimilating the projects that were being turned in. The planned traffic capacity of this complex was reached already within a year. In 1974-1975 the first experiments--the use of timber grabbing devices and stacking equipment--were conducted for reducing the labor-intensiveness of loading operations. The program for incorporating stacking operations included creating a warehouse setup, providing for the utilization of hoisting attachments, as well as rendering assistance for assimilating the stacks in timber management organizations which delivered the timber cargoes to the ports.

At the present time there are a specialized fleet, railway flatcars, hoisting attachments and stacking equipment for shipping stacked timber cargoes--all this makes it possible with certainty to assert that the volume of cargo operations for the timber processing complex can soon reach 1 million tons or more logs per year. For this the Ministry of the Timber, Pulp and Paper, and Wood Processing Industry must establish planning quotas for stacking logs through the "Dal'lesprom", "Vostoklesosplav" and "Amurskles" industrial associations.

Unfortunately, the resources of the timber complex are not being fully utilized because the quantity of stacked cargoes has been reduced lately. This is particularly significant for 1983 when the volume of stacked lumber was reduced to almost one-third as much. This basically occurred through the fault of the timber management organizations and the railroad.

October, 1975 became important as the launching of a special purpose wood chip complex. Now it has become possible to provide for separate warehousing of manufactured wood chips by grades and for clearing them of metal objects, to rapidly unload railway cars without damaging them, and to rapidly load specialized ships with complete utilization of their tonnage.

The complex's industrial equipment makes it possible to both simultaneously unload a vessel and unload wood chips from a rail car to the warehouse. A direct variant is also envisaged for "rail car to vessel" cargo transshipping. The handling of all mechanisms is accomplished from a central console and an industrial television unit makes it possible to supervise their operation.

Much work has been done by the complex's collective on making the systems right, which were not developed sufficiently well by the planners, and providing for the removal of sawdust. The system for delivering loaded gondola cars and removing empty ones was completely changed. All this made it possible to attain the planned results on the industrial lines.

Today, however, poor utilization of the complex is a basic problem. The timber industry and the "Eksportles" industrial association provide only 40 percent of the volume of cargo operations. Under these conditions it is difficult to provide for the complex's stable and efficient operation and to eliminate the personnel turnover.

The creation at the complex of a cost accounting brigade under the leadership of the experienced dock worker A. Usov has considerably improved production discipline and reduced personnel turnover. The brigade's repeated appeals to managers of the "Dal'lesprom" and "Eksportles" industrial associations in the Ministry of the Timber, Pulp and Paper, and Wood Processing Industry on the matter of fuller utilization of the complex did not provide the proper result.

In May, 1976 the Vostochnyy port workers began processing standard international containerized vessels at a new berth. This berth started the creation of a modern containerized area.

In 1977 an automated containerized terminal control system (ASKUT) was introduced. While not solving the tasks of subcontractors, in the beginning this system provided just for planning cargo operations within the containerized terminal. Thus, preliminary information on the approach of containerized carriers by sea and by rail was totally absent. This caused additional sorting operations which were accompanied by an outlay of labor and material resources, and it led to downtime of transportation facilities.

These problems were partially solved by the port workers during the first stage of incorporating the automated system, which went into operation in 1978, for the exchange of information between the members of the Trans-Siberian containerized vessels to the port. As a result, management of the shipping process has improved qualitatively, cargo delivery periods have been reduced, and coordinating the actions of members of the transportation process has improved.

Following the development and incorporation of an ASU [automated control system] for the movement of transit containerized vessels of the "Soyuzvneshtrans" V/O [all-union association] office, creation of the "Konteyner" ASU collective utilization system was completed and accepted for operation. This made it possible to reduce operations for the intraport travel of containerized vessels and to dispatch all containerized vessels via railway routes; freight documents began to be prepared by computers, the receipt of statistical accountability was automated, and data arrays were created for storing all information on containerized vessels which had proceeded. In 1982 the volume of cargo operations by containerized terminal exceeded its planned capacity by a factor of 1.5.

The disproportion of freight flows of westerly and easterly directions is the basic problem of the containerized complex, and this leads to a shortage of rolling stock. Therefore, we often have to utilize multipurpose flatcars which require three times more time and labor expenditures than the specialized ones. In addition, the bans for various reasons by the MPS [Ministry of Railways], the MVT [Ministry of Foreign Trade] and other organizations on dispatching containerized vessels, as well as a deficiency of spare parts for transshipping equipment which operates under conditions of high intensity, are complicating operations.

At the beginning of 1979 the powerful multipurpose coal complex was put into operation. Its traffic capacity is over 5 million tons of coal per year. The pier on which 2 loading machines are installed is capable of receiving vessels with a cargo capacity over 100,000 tons.

The unloading of coal which is frozen together is today's main problem of the coal complex. Just for the 6 winter months of 1982-1983 more than 2,000 rail cars with frozen coal arrived at the port from eastern Siberia. The vibration method of loosening, which was stipulated by the plan, did not prove its value. Drilling was only partially effective since the large pieces of coal all the same won't pass through the grates which are installed over the belt conveyers, and they are required to be broken up manually with sledge hammers. Therefore, we have to utilize a combined method: warm up the coal in the rail cars in a special shop and then loosen it with drills. But from 2 to 7 days and a great deal of manual labor are spent on this. The complex's labor force of repair and servicing personnel is faced as well with a big job in staffing.

All the port's complexes are highly productive production sectors in which automated equipment is the main link of the industrial process. Under these conditions the ASU plays a special role. The containerized terminal's computer center was awarded medals of the USSR VDNKh [Exhibition of Achievements of the National Economy] for developing and incorporating the automated control system for containerized vessel traffic.

The port's second priority construction is continuing. A new containerized berth will begin to operate soon.

However, Vostochnyy isn't just transshipping complexes. There are more than 20 independent subunits [podrazdeleniye], a settlement with a population of more

than 10,000 people, kindergartens, schools, stores and institutions for everyday services. Unfortunately, according to the level of their development, they fell considerably behind their production base. The elimination of this disproportion is a task of paramount importance, and to the solution of which the port's collective is now devoting particular attention.

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PORTS AND TRANSSHIPMENT CENTERS

PILOT SHORTAGE SLOWS LENINGRAD PORT TURNAROUND TIME

Moscow VODNYY TRANSPORT in Russian 17 May 84 p 1

/Article by Yu. Dorenskiy, captain of the "Volgo-Balt-206"; first mate Yu. Chervov; and M. Neronov, chairman of the trade union committee: "'We Were Serviced'", which appears under the rubric, 'Critical Signal'/

/Text/ Our "Volgo-Balt-206" motorship lay idle for four days, thanks to the comprehensive fleet services workers of the Leningrad River Port.

We sailed from Riga into the basin of our White Sea-Onega Steamship Line loaded with commercial timber. As authorized, we submitted a requisition in advance for servicing in Leningrad, including ship-pilot service. We repeated the request via ultrashortwave radio during approach to the port and the comprehensive fleet services accepted it for execution.

It should be emphasized that ships were guided under the opened bridges here previously not only by local pilots but also the captains themselves if they had sufficient experience and a non-pilot steerage permit. As of this year compulsory pilotage of ships with displacement in excess of 2,000 tons through the opened spans of Leningrad bridges was established on the basis of a decision of the city soviet executive committee.

How did the northwestern river fleet workers respond to this decision? Apparently, not at all. Even at the start of navigation when traffic on internal waterways was still not too intensive, the Leningrad port was not able to provide passing large-tonnage ships with pilots. Organizational confusion was also added to the shortage of these specialists. After we made fast to the Lieutenant Shmidt Embankment, no pilot was found for us during our first 24 hours there. But on the second day, toward nightfall, both a pilot and a backup understudy with him came aboard our ship, although the wind had intensified to a 6-7-point velocity and it was obvious, according to regulations, that no bridges would be drawn open that night. That was, indeed, the case. After this, no pilot was provided for another two days. Incidentally, pilots are provided, on the average, for no more than five-six ships a day, mostly "their own", of the Northwestern Steamship Line.

6264
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VLADIVOSTOK PORT ACHIEVING IMPROVED PERFORMANCE

Moscow VODNYY TRANSPORT in Russian 8 May 84 p 2

/Article by L. Dyatlov, engineer of Vladivostok Maritime Commercial Port: 'When Native Intelligence Is Respected', which appears under the rubric, 'The Economy Must Be Economical'/

/Text/ The motorship "Khudozhnik Kustodiyev" left the wharf of the Vladivostok Maritime Commercial Port. It was unloaded in record time -- a total of three and one-half days instead of the seven days allowed by the schedule. Around 23,000 tons of loose cargo were moved from the holds of the ship into railway cars. In this connection the dock workers of the cost-accounting consolidated, multipurpose brigade of V. Shishkin filled each of them with two-three tons over the specified carrying capacity. As a result, the wharf was supplied with 14 fewer railcars than planned. The total economic effect from the accelerated processing of only this one ship and the railcars was 10,000 rubles.

This success is neither isolated nor accidental. During the past year the gross intensity of the processing of ships with loose cargoes increased 17 percent and railway cars, 28 percent. There was a marked increase also in the quality of processing. The achievement of high indices was preceded by a great deal of work, connected with the introduction of technical innovations and the improvement of technological processes.

For example, when the need appeared for equipping the new wharf for the processing of loose cargoes in brief periods of time, the question arose of new hoppers, with the aid of which it would be possible to load boxcars and hopper cars simultaneously. In comparison with the port's hoppers, these hoppers were to consist not of 8 but of 12 stage-loading sections and be positioned not over 2 but over 3 railroad tracks.

There were no technical documents for such hoppers. It would take large design agencies no less than nine months to prepare these designs. Such a time period did not suit us.

For prompt solution of this problem a high-initiative group was set up, which included design buro chief V. Mikhaylenko, engineers V. Pugacheva and V. Prudnikova, and V. Kulikov, chief specialist of Dal'morniiproyekt /Far Eastern Planning and Scientific Research Institute for Maritime Facilities/. These people worked with truly creative zest. Within 10 days the designs were submitted to the Vladivostok and Sovetskaya Gavan ship-repair plants, the collectives of which produced two hopper units within 3 months.

The operational qualities of the stage loaders proved to be quite high and reliable. With their assistance it is possible to process up to 400 tons of loose goods per hour. It is not surprising that the expenditures for manufacture of the hoppers were recouped within four months.

Interruptions during transshipping operations became even less frequent after four all-weather hopper units were put into operation. The cargo goes through suction hoses from the holds of the ships into railway cars in fog, strong winds, rain, and even during snowfall in the winter.

Processing of loose cargoes in port does not always go smoothly. Is it advantageous in such cases to use a stationary automatic coupler, attached to an automatic loader, with the aid of which the loaded railcars are pushed or rolled out from under the hoppers? Clearly, it is not. After all, if the transfer of goods is not being conducted, this means that the loader with the coupler also stands idle. On the recommendation of the dock workers a rapid-detachable automatic coupler was manufactured and is now being used successfully.

In creative work there is a constant regularity: you no sooner succeed in solving one problem before another intrudes to take its place. That is precisely what happened in this case. If, after the application of automatic couplers the downtime of automatic loaders was stopped, then right then and there the idea came to mind: in general, is it not possible, with more flexible performance of shunting operations, to release part of the automatic loaders for utilization on other more labor-intensive operations? To utilize, let us say, the "Unilok" locomotive instead of a diesel locomotive. We tried it and were immediately convinced in actual practice that this simplest possible solution permits the freeing of two automatic loaders. The economic effect was 62,000 rubles.

Stowing machines were previously used for cleaning the holds and a great deal of manual labor was expended in this process. Bucket loaders, which are small and have excellent mobility, are now being used on the recommendation of the port technologists.

Along with the introduction of technical innovations, the drive for a rise in the quality of goods processed continues unabated. For example, preparations for the transfer of loose cargoes previously began with manual lowering of the protective cover over the side of the ship to the wharf, which took at least 50 minutes. However, during this very same period of time it is possible to process 280 tons of cargo at the port with three cranes.

On the proposal of experienced brigade leader A. Kuznetsov the canopy stand is now hoisted with the aid of an electric winch (with cables through the pulleys). It takes only two minutes to carry out this operation. The great value of this innovation lies also in the fact that the very taut canopies do not form cracks, are not blown about by the wind, and also, which is not surprising, their service life has tripled.

But how can we ensure that even less of the cargo will spill out of the grab buckets during their movement from the holds to the hoppers? We thought, conferred, and came to the conclusion: to weld 100-millimeter pipes to the edges of the grab bucket jaws. Then their "lips" will not become serrated on the bottom of the holds, and this means that they also will not miss or lose goods.

It is possible to give many other examples of the creative approach to work of the Vladivostok dock workers. From these examples it is clear that here they are striving to make maximum use of equipment and are searching for ways of increasing the efficiency and quality of the processing of cargoes.

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